ENGINEERING REPORT

U.S. ARMY RESERVE CENTER
MAJOR HENRY F. SCHROEDER HALL
3800 EAST WILLOW STREET
LONG BEACH, CALIFORNIA

PREPARED FOR:

63D REGIONAL SUPPORT COMMAND
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QST PROJECT NO. 64-97-175G

JUNE 30, 1999

This Engineering Report has been prepared by QST Environmental Inc. for the exclusive use of 63d Regional Support Command as it pertains to its site located at 3800 East Willow Street in Long Beach, California. Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by other engineers practicing in this field. No other warranty, express or implied, is made as to professional advice in this document.

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June 30, 1999

QST Project No. 64-97-175G
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TABLE OF CONTENTS

LIST OF FIGURES AND DRAWINGS

LIST OF APPENDICES

ENGINEERING REPORT
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1.0 INTRODUCTION

1.1 PURPOSE

QST Environmental Inc. (QST), under a contract with the United States Army Corps of Engineers (USACE), conducted a field investigation of the existing vehicle washrack facility (including an existing oil/water separator) at the U.S. Army Reserve Center, Major Henry F. Schroeder Hall (the Facility) located at 3800 East Willow Street in Long Beach, California (see Figure 1). The objectives of this field investigation were as follows:

- Evaluate the existing site conditions,
- Locate inlet/outlet pipeline connections for the existing oil/water separator,
- Evaluate the flow path of the wash water (wastewater) discharging from the oil/water separator,
- Locate the existing sanitary sewer, storm drain, and other underground utility pipelines in the vicinity of the washrack,
- Review applicable regulatory requirements to evaluate the compliance/non-compliance issues for the existing oil/water separator and the washrack, and
- Provide recommendations and cost estimates for the correction of any deficiencies.

QST's review of the regulatory requirements for this site focussed on the following items:

- Wastewater pre-treatment requirements,
- Oil/water separator size and performance requirements,
- An industrial waste discharge permit requirements, including permit limitations for discharging the wastewater from the oil/water separator to the sanitary sewer,
- Potential requirement for coverage under the California General Permit (General Permit) for Storm Water Discharges Associated with Industrial Activity (see Section 3.0),
- Guidelines regarding roof structure (canopy) over the washrack or an automated rain water diversion system to prevent any rain water from entering the sanitary sewer system.
- Recommended Best Management Practices (BMPs) such as grading for the open area to redirect the rain water runoff to the storm drain system, a berm around the washrack, and a trench with a grated cover for the washrack.

This engineering report describes the activities, procedures and results of the investigation, applicable regulatory requirements, and conclusions and recommendations for bringing the existing washrack and the oil/water separator into compliance with the regulatory requirements. The report also presents preliminary order-of-magnitude cost estimates for the recommended compliance measures. The information presented in this report is based on the following:

- QST's site reconnaissance,
- A review of the existing site drawings,
- Discussions with the regulatory personnel for identifying the regulatory requirements,
- A review of the regulatory requirements,
- Field testing (dye testing) of the oil/water separator,
- A geophysical survey to locate underground utilities, and
- Additional information gathered from the facility and Key Project Personnel.

1.2 FACILITY DESCRIPTION

The facility is located at 3800 East Willow Street in Long Beach, California (see Figure 1). The facility provides organizational support to the U.S. Army Reserve units. The facility consists of various buildings, a vehicle wash area, and a hazardous waste storage area (see Drawing C-1).

1.3 KEY PROJECT PERSONNEL

Key personnel participating in project activities are listed below.

Organization	Contact Person	Address and Phone Number	Project Responsibility
Department of Army Headquarter, 63d Regional Support Command, Engineers' Office	Sharon Farr	HQ, 63d RSC 11200 Lexington Drive, Building 7 Los Alamitos, CA 90720 (562) 795-1440	Client Project Manager
US Army Corps of Engineers	Ronald Gibson	Army Engineer District, Mobile P.O. Box 2288 109 Saint Joseph Street Mobile, AL 36628-0001 (334) 690-2688	Client Project Adviser
U.S. Army Reserve Center	Frank Williams	3800 East Willow Street Long Beach, CA (562) 997-5200	Facility Manager

Organization	Contact Person	Address and Phone Number	Project Responsibility
QST Environmental Inc.	Paul Mehta	3545 Howard Way, 2nd Floor, Costa Mesa, CA 92626 (714) 426-9000	Senior Engineer
QST Environmental Inc.	Karl Bewley	3545 Howard Way, 2nd Floor, Costa Mesa, CA 92626 (714) 426-9000	Facility Manager
QST Environmental Inc.	Ercan Candan	3545 Howard Way, 2nd Floor, Costa Mesa, CA 92626 (714) 426-9000	Field Engineer
QST Environmental Inc.	William Kelly	3545 Howard Way, 2nd Floor, Costa Mesa, CA 92626 (714) 426-9000	Chief Field Technician
Maverick Environmental Services	Mark Slatten	2828 Cochran Street, Suite 375 Simi Valley, CA 93065 (805) 577-9127	Geophysical Survey Subcontractor

1.4 ENGINEERING REPORT ORGANIZATION

Following this section, Section 2.0 describes the prefield and field activities including the existing site conditions and results of the dye test and geophysical survey. Section 3.0 presents an overview of the regulatory requirements, identifies the site-specific local regulatory requirements, and presents QST's evaluation of the regulatory compliance/non-compliance for the washrack and oil/water separator for this site. Conclusions and recommendations for any future actions for compliance are provided in Section 4.0. Section 5.0 presents the preliminary order-of-magnitude cost estimates for the recommended compliance measures. Section 6.0 provides a list of references used in the preparation of this engineering report. Appendices and figures or drawings are also included with this report.

2.0 INVESTIGATION PROCEDURES

2.1 PREFIELD ACTIVITIES

Prior to the field investigation, site reconnaissance of the facility was conducted by a QST engineer to gather site-specific information such as available facility drawings, locations for the existing washrack and the oil/water separator, and availability of a water source to conduct the field dye test for the oil/water separator. QST reviewed the existing facility drawings (where available) from the files at the Engineers' office (Building 7) of the 63d Regional Support Command in Los Alamitos, California.

Prior to starting the field investigation, QST contacted the Facility Manager (Mr. Frank Williams) to coordinate and schedule the field work. QST also informed and coordinated with the 63d Regional Support Command Environmental Division (Ms. Sharon Farr).

2.2 SITE INSPECTION AND EXISTING CONDITIONS

On December 8, 1998, QST personnel visited and inspected the site. Site photographs are included in Appendix A. The existing site conditions are depicted on Drawing C-1. The following site conditions were observed:

General Site Appearance

- Oily stains were not observed on the ground surface in the vicinity of the oil/water separator and the washrack.
- The concrete and asphalt surfaces generally appeared to be in good condition.

Washrack

- The washrack area is approximately 40 feet in length by 25 feet in width (see Photograph Nos. 3 and 4).
- The washrack has a berm around it.
- The washrack has a trench with a grated cover. The wash water collected in the trench drains into the oil/water separator. The wastewater from the oil/water separator will discharge into the sanitary sewer system.

Oil/Water Separator

- The oil/water separator is a three-stage oil/water separator that is approximately 16.5 feet in length by 4.5 feet in width by 7.5 feet in depth. It consists of three compartments with two additional end compartments (see Photograph Nos. 4 and 5). The volume of the oil/water separator is approximately 4,200 gallons.
- The oil/water separator is of concrete construction and appeared to be in good condition. It collects wash water from the adjacent vehicle washrack.
- There is a catch basin near the oil/water separator (see Photograph No. 5).

Rain Water Diverter Valve

- A rain water diverter valve was not visible at the inlet of the oil/water separator. However, it is known to exist based on QST's observation of the rain catcher on the ground surface. Based on discussions with the 63d Regional Support Command, this valve is not functional. Since there are no electrical switches associated with this valve, QST considers this existing rain water diverter valve to be of a mechanical type. The other type of rain water diverter valve available on the market is an electrically-operated valve. After completing the field work, QST contacted the supplier (M.C. Nottigham Company, Inc., Telephone: 714-953-6700) and obtained the technical information on both types of rain water diverter valves. This information is included in Appendix B.
- There is a pipe connection between the oil/water separator and the nearby catch basin. However, this pipe is currently plugged. QST recommends cleaning this pipe. With the rain water diverter valve properly functioning, the excess rain water collected on the washrack will flow into this catch basin. Based on the site topography, the rain water from the washrack area will be directed in the northeast direction towards Willow Street.

Storm Drain System

- Besides the catch basin near the oil/water separator, QST did not observe any other storm water catch basins on the site. The geophysical survey conducted in the vicinity of the washrack indicated that a storm drain pipe exists, which connects this catch basin and the oil/water separator. The geophysical survey did not indicate the presence of any other underground storm drain pipes in the vicinity of the washrack.
- Based on the site topography, the rain water runoff at the site flows from the washrack area, in the northeast direction towards Willow Street.

Miscellaneous

- The facility does not have an industrial waste discharge permit for discharging wastewater from the oil/water separator to the sanitary sewer system.
- Under a separate work order, QST evaluated the applicability of the General Permit to this site. QST concluded that since the facility has no significant vehicle maintenance activity, the General Permit does not apply (see QST letter to Ms. Sharon Farr, dated January 5, 1998).
- A hazardous waste storage area exists near the oil/water separator (see Photograph No. 5). This hazardous waste storage area has a secondary containment and a rain protection cover. If an improvement to this area is desired, the information on pre-engineered, modular hazardous materials storage containers is provided in Appendix C.

2.3 DYE TEST

The primary purpose of conducting the dye test was to determine whether the wastewater generated during the vehicle washing operation is discharged from the oil/water separator to the sanitary sewer or storm drain system. The dye test was also performed to verify if there were any other discharges or drains connected to the oil/water separator (such as drains from the hazardous waste storage area).

On December 8, 1998, QST personnel conducted the dye test onsite. A liquid dye (Yellow Green) was used to conduct the dye test. A material safety data sheet for the dye is included in Appendix D. A small quantity of the dye was mixed with water in a 55-gallon plastic drum. The dye solution was transferred into the washrack, using a submersible pump. The travel path of the green-colored dye was observed during the dye test. The dye was observed discharging through the oil/water separator and sanitary sewer cleanouts. No dye was observed in the catch basin existing at the site. Field notes of the dye test conducted are included in Appendix E.

2.3.1 Dye Test Results

The dye test indicated that the oil/water separator discharges to the sanitary sewer system. Although the oil/water separator is connected via a storm drain pipe to the catch basin, the dye test did not indicate that the dye solution entered into this catch basin. This indicates that the storm drain pipe connecting the oil/water separator and catch basin must be filled with debris or plugged. The layout of the complete sanitary sewer system (from the oil/water separator, through the sanitary sewer cleanouts, and to the main sewer line) is indicated on Drawing C-1.

2.4 GEOPHYSICAL SURVEY

On December 8, 1998, Maverick Environmental Services (a QST subcontractor) conducted the geophysical survey over portions of the site in the vicinity of the existing washrack area (see Drawing C-1). The purpose of the geophysical survey was to locate underground utility lines (such as water,

sewer, storm drain, electric, and gas lines) in the washrack area. A combination of techniques was used for the geophysical survey. These techniques are described below.

Ground Penetrating Radar (GPR)

Primary applications of GPR are detecting buried utilities, detecting USTs and buried drums, and identifying subsurface voids. The GPR system transmitter introduces pulses of electromagnetic energy at a very high frequency into the ground. Pulses are reflected wherever a measurable contrast in electrical properties occurs. This contrast may be either due to natural or man-made structures. Reflected pulses received by the antenna are digitized for display on a color monitor and then processed for measurable contrast in electrical properties. The result is a visual pseudo-cross sectional profile.

Dynatel 2220L Pipe and Cable Locator

The 3M Dynatel 2220L Pipe and Cable Locator is an instrument based on a transmitter/receiver system used to detect buried utilities including pipes. In "induction" mode, the transmitter box is placed over the suspected pipeline location and 33 mega hertz (MHz) and 45 MHz frequencies are transmitted into the ground (and along the pipeline). A hand held receiver is used to trace the pipeline by detecting the two frequencies.

The surface trace of each pipeline was spray-painted on the ground surface. In the "direct connect" mode, an attachment is made directly to the pipe to be traced. Where possible, the "direct connect" mode was used to trace piping.

MAC 51-B Magnetic and Cable Locator

The MAC 51-B Magnetic and Cable locator is a hand-held instrument used for detecting buried iron and steel objects. The pole-like device has a speaker at the top and two sensors within it, one near the ground and one about 20 inches higher in the pole. In the absence of metallic objects, the speaker emits a 40 Hz sound, called the "idling frequency". Because one sensor is closer to the ground than the other, different field strengths are measured. The speaker emits a frequency proportional to the difference in field strengths measured by the two sensors.

2.4.1 Geophysical Survey Results

The results of the geophysical survey are documented on Drawing C-1, which depicts utility lines in the vicinity of the washrack. For this site, the geophysical survey conducted in the vicinity of the washrack did not indicate the presence of underground storm drain pipes, except for the storm drain pipe that connects the oil/water separator to the catch basin.

3.0 REGULATORY REQUIREMENTS AND COMPLIANCE EVALUATION

3.1 REGULATIONS OVERVIEW

The following paragraphs provide a general overview of various regulatory requirements affecting the wastewater and storm water discharges from oil/water separators associated with washracks.

Clean Water Act

The primary objective of the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act (CWA), is to restore and maintain the chemical, physical, and biological integrity of the nation's surface waters. Pollutants regulated under the CWA include "priority" pollutants, which include various toxic pollutants; "conventional" pollutants such as biochemical oxygen demand (BOD), total suspended solids (TSS), fecal coliform, oil and grease, and pH; and "non-conventional" pollutants, which include any pollutant not identified as either conventional or priority.

The CWA regulates both direct and indirect discharges. The National Pollutant Discharge Elimination System (NPDES) program (CWA Section 402) controls direct discharges into navigable waters. Direct discharges or "point source" discharges are from sources such as pipes and sewers. For federal facilities, if oil/water separators associated with washracks discharge to surface waters, they are considered direct or "point sources" and require NPDES permits. NPDES permits are issued by the Environmental Protection Agency (EPA) or an authorized state regulatory agency. These NPDES permits contain industry-specific, technology-based and/or federal or state water quality criteria-based limits. The NPDES permits also require facilities to conduct pollutant monitoring.

Storm Water Discharges

In 1987, the CWA was amended requiring the EPA to establish a program to address storm water discharges. As a result, facilities with storm water discharges associated with industrial and construction activity are required to obtain NPDES permits. These NPDES permits are designed to limit the impact of pollutants (such as oil and grease and sediments) in storm water runoff that ultimately discharges into rivers and lakes. These NPDES permits require implementation of Best Management Practices (BMPs), including good housekeeping, source reduction, and, if necessary, the treatment of storm water discharges. In addition, the storm water regulations prohibit non-permitted discharges (wastes and wastewater) to storm sewers. Industrial facilities and construction sites that are subject to storm water permitting must also develop and implement a Storm Water Pollution Prevention Plan (SWPPP), conduct a visual monitoring program, conduct an annual site compliance evaluation, and complete an annual report certifying compliance with the permit requirements.

California is an NPDES-delegated state with an authority for issuing General Permits for industrial storm water discharges. Under the California General Permit requirements, industrial dischargers are required to submit a Notice of Intent to the State Water Resources Control Board in Sacramento, California. They are also required to develop and implement a SWPPP, conduct a visual monitoring program, conduct an annual site compliance evaluation, and complete an annual report certifying compliance with the General Permit requirements. All 63d Regional Support Command facilities' activities are "motor transportation" activities and, as such, these activities are regulated under the California General Permit and the above-mentioned requirements of the General Permit apply.

Storm Water Best Management Practices (BMPs)

To minimize potential impacts to storm water runoff, a regulatory recommended BMP is to install concrete curbing around the washrack areas. This BMP provides containment of wash water and prevents storm water run-on from adjacent pavement areas. Another recommended BMP is grading the adjacent pavement areas to allow for water drainage away from the washrack. Furthermore, a canopy (for wash areas under 4,000 square feet) or a rain water diverter valve should be installed to satisfy the Los Angeles County Sanitation District's requirements. Due to operational problems associated with rain water diverter valves, the 63d Regional Support Command prefers washrack covers.

Wastewater Discharges to Municipal Sanitary Sewer System

Federal, state, and local laws govern wastewater discharges to the sanitary sewer and Publicly Owned Treatment Works (POTWs). Facilities discharging wastewater to the sanitary sewer and POTW must obtain an industrial waste discharge permit from the local control authority, such as the local county sanitation district. The permit specifies the local discharge limits and general pretreatment requirements. The facilities are also subject to categorical standards for wastewater generating processes identified and defined under the Code of Federal Regulations (CFR) 40 CFR 403.6.

An industrial waste discharge permit is required, under local ordinances, for oil/water separators that discharge wastewater to the sanitary sewer or POTW. In addition, local regulations state that storm water shall not be discharged directly or indirectly to the local district's sanitary sewer or POTW unless an approval has been granted by the local sanitation district for storm water discharges. The local sanitation district may approve the discharge of storm water on a temporary basis only when no alternate method of disposal is reasonably available. Approval may also be given to mitigate an environmental or health hazard with the installation of appropriate rain water diversion devices or facilities.

3.2 SITE-SPECIFIC LOCAL REGULATORY REQUIREMENTS

The Los Angeles County Sanitation District is the enforcing regulatory agency for this site. QST contacted Mr. Brent Perry (562-699-7411), an environmental engineer at this agency, to identify the site-specific regulatory requirements applicable to the oil/water separators and washracks. The copies of the regulations and storm water discharge policy that were obtained are included in Appendix F. The site-specific regulatory requirements and information received are summarized below:

- A waste discharge permit is required for the discharge of wash water (wastewater) from the oil/water separator associated with the washrack.
- The typical conditions for a waste discharge from the oil/water separator to the sanitary sewer system are specified in the regulations (see Phase 1 limits on page 7 of the Industrial Wastewater Discharge Permit booklet and Section 406 on page 38 of the regulations in Appendix F). These regulations do not specify a discharge limit for oil and grease; however, according to Mr. Brent Perry, the maximum enforced discharge limit for oil and grease is 75 milligrams per liter (mg/L) or parts per million (ppm).
- The regulations do not specify a particular size requirement for the oil/water separator; however, the oil/water separator must meet the concentration limit of 75 mg/L for oil and grease in the wastewater being discharged.
- According to the regulations (see Section 202 on page 15 of the regulations in Appendix F), any regulatory violation is considered a misdemeanor offense, that is punishable by law through the office of the District Attorney of Los Angeles County or other appropriate authority. Criminal violations are punishable as felonies and carry substantial fines and penalties under the law.
- In accordance with Section 305 (see page 29 of the regulations in Appendix F), discharges of groundwater and surface runoff into the sanitary sewer system are prohibited, except where prior approval for such discharges is granted by the agency.
- The storm water policy (see Appendix F) adopted by the Los Angeles County Sanitation District generally discourages the discharge of surface runoff (rain water) into the sanitary sewer system. The main reason for this is that the agency does not want to hydraulically overload its sanitary sewer system. However, each site is evaluated on a case-by-case basis. This storm water policy has the following requirements:
    - Appropriate measures (such as grading the open area) are required to direct the rain water flow to the storm drain system.
    - Provided that local regulations are satisfied, a roof structure (canopy) is required for all exposed washracks which have a total area under 4000 square feet. If the canopy does not include walls, then the canopy overhang must extend a minimum of 20 percent of the roof height. All roof drains must be routed to the storm drain system.

- Where the installation of a canopy is infeasible or prohibited by local regulations, the Los Angeles County Sanitation District may accept the use of an automated rain water diversion system. This diversion system is described on page 2 of the storm water policy (Appendix F). QST has discussed the function and requirements of the automated rain water diversion system with the Los Angeles County Sanitation District. QST has learned that a pump as described in the storm water policy is not necessarily required for gravity type oil/water separators. The agency will accept a rain water diverter valve at the inlet of the oil/water separator, which will ensure that the rain water flow will be automatically diverted to the storm drain system.
- In cases where a rain water diversion system is installed, only the first 0.1 inch of rain water is allowed to enter the sanitary sewer system. After the first 0.1 inch rainfall, excess rain water must be diverted to the storm drain system by using an automated diversion system.

- The installation of a canopy over the washrack requires a plan approval from the local city Building Department.

3.3 COMPLIANCE EVALUATION

Based on the regulatory requirements previously cited, a compliance evaluation of the oil/water separator and washrack system at the facility is summarized below:

- The existing topography near the washrack is such that the rain water flows from the washrack in the northeast direction towards Willow Street. Additionally, there is a berm around the washrack and the washrack has a trench with a grated cover. These existing features should prevent the rain water from entering the sewer system. Therefore, the site meets the requirements of the storm water policy for washracks.
- The existing washrack has an exposed area of approximately 1000 square feet. The storm water policy requires a canopy over the washrack for exposed areas under 4,000 square feet. A further discussion regarding the canopy requirement is provided in Section 4.0.
- The oil/water separator discharges to the sanitary sewer system. This separator is a three-stage precast concrete separator. Based on the end-to-end overall dimensions of approximately 16.5 feet in length by 4.5 feet in width by 7.5 feet in depth, the useful capacity of this separator is close to or exceeds the typical capacity of such large separators (1500 gallons). Based on experience with similar separators, QST considers this separator to be capable of meeting the oil and grease concentration limit of 75 mg/L in the wastewater being discharged.

- The rain water diverter valve was not visible at the inlet of the oil/water separator. However, a rain water diverter valve is known to exist based on QST's observation of the rain catcher on the ground surface. Based on the discussions with the 63d Regional Support Command, this valve is not functional. Therefore, there is no working provision that currently exists to divert rain water to the storm drain system, as required by the Los Angeles County Sanitation District's storm water policy. A further discussion regarding the rain water diverter valve is provided in Section 4.0.
- The facility does not have an industrial waste discharge permit for discharging wastewater from the oil/water separator to the sanitary sewer system. An industrial waste discharge permit is required for this oil/water separator, in accordance with the Los Angeles County Sanitation District regulations.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are provided based on the investigation results and review of the regulatory requirements:

- QST previously evaluated the applicability of the General Permit for this site. QST concluded that since the facility has no significant vehicle maintenance activity, the General Permit does not apply.
- The existing topography near the washrack is such that the rain water flows from the washrack in the northeast direction towards Willow Street. Additionally, the washrack has a berm around it. It also has a trench with a grated cover. Therefore, the site is in compliance with the Los Angeles County Sanitation District's storm water policy requirements for washracks.
- The existing washrack has an exposed area of approximately 1000 square feet. The storm water policy requires a canopy over the washrack for exposed areas under 4,000 square feet. However, based on the discussions with the enforcing regulatory agency, QST has learned that the storm water policy document is a general guidance document only; it does not substitute for the regulations and each site is evaluated on a case-by-case basis for compliance with the storm water policy. QST considers that a case could be made for this site not to require a canopy because of certain other measures that are already present at the site. These measures include a berm around the washrack, existing site topography such that the rain water flows from the washrack area in the northeast direction towards Willow Street, and the rain water diverter valve at the inlet of the oil/water separator. QST considers that a properly functional rain water diverter valve along with other measures present at the site should satisfy the general intent of the regulations, which is to prevent the rain water from entering the sanitary sewer system.
- The rain water diverter valve present at the site is considered to be a mechanical type. This type of valve closes automatically by means of a rain catcher, but it requires manual resetting. Although this type of valve could be acceptable to the Los Angeles County Sanitation District, QST recommends replacing it with a more reliable, truly automatic electrically-operated rain water diverter valve. Additional information regarding the electrically-operated rain water diverter valve is included in Appendix B.
- The oil/water separator is connected to the sanitary sewer system and the wastewater generated during the vehicle washing discharges to the sanitary sewer system.
- The facility does not have an industrial waste discharge permit for the existing oil/water separator. QST recommends obtaining a permit for this separator in order to comply with the regulations.

- The geophysical survey conducted in the vicinity of the washrack did not indicate the presence of underground storm drain pipes, except for the storm drain pipe that connects the oil/water separator to the nearby catch basin. Since this pipe was found to be either filled with debris or plugged based on the dye test results, QST recommends cleaning this pipe to render it usable.
- An area drain, located in the hazardous waste storage area, is connected to the oil/water separator by a pipe. However, this pipe was found to be either filled with debris or plugged based on the dye test results. To avoid any chances of chemical spills draining into the separator, QST recommends permanently closing this drain pipe by filling it with concrete.

5.0 COST ESTIMATES

The preliminary cost estimate for installing an electrically-operated rain water diverter valve and permanently closing the drain pipe (originating from the hazardous waste area and connecting to the oil/water separator) is provided in the attached spreadsheet (Table 1). This cost estimate is based on the consideration that the existing catch basin near the washrack and its connecting pipe to the oil/water separator will be used for directing the rain water overflow when the electrically-operated rain water diverter valve closes. Based on the review of the existing site drawings and the topography, the rain water overflow will be directed away from the washrack area, in the northeast direction towards Willow Street. This is the most practical and least costly option. The estimated cost for this option is approximately $23,000.00.

Although the canopy over the washrack is not recommended for this site, the cost estimate for the canopy installation is developed and presented in the attached spreadsheet (Table 2) for comparison purposes only. As shown, the estimated cost for this option is approximately $39,000.00.

Please note that these cost estimates are based on verbal price estimates obtained from the suppliers/contractors and QST's understanding of the required work to bring the washrack and oil/water separator into compliance with the regulatory requirements.

TABLE 1. COST ESTIMATE FOR RAINWATER DIVERTER VALVE INSTALLATION AT LONG BEACH SITE

DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT COST ($)	TOTAL COST ($)
PERMITTING AND COORDINATION (INCLUDES WASTE DISCHARGE CONSTRUCTION PERMITS)				
Senior Environmental Engineer	8	HR	83.86	670.86
Environmental Engineer	16	HR	83.86	1,341.73
CAD Drafter	16	HR	42.87	685.87
Permit Approval/Inspection Fees	1	LS	700.00	700.00
Other Miscellaneous Direct Cost	1	LS	300.00	300.00
SUBTOTAL				**3,698.46**
EQUIPMENT AND MATERIALS				
Rainwater diverter valve	1	LS	3384.00	3384.00
Taxes (8%) and Delivery Costs (3%)				372.24
Mark-up (10%)				375.62
SUBTOTAL				**4,131.86**
SITE WORK				
Contractor Mob/Demob	1	LS	1,200.00	1,200.00
Mechanical Installaltion				
Rainwater diverter valve installation (Includes Electrician)	1	LS	1,800.00	1,800.00
Civil Installation				
Fill with Concrete-Drain Line From Hazardous Waste Storage Area to Oil/Water Separator	1	LS	500.00	500.00
Field Observations				
Senior Environmental Engineer	24	HR	83.86	2,012.59
Environmental Engineer	24	HR	83.86	2,012.59
Other Miscellaneous Direct Cost	1	LS	250.00	250.00
As-Built Drawings				
Senior Environmental Engineer	4	HR	83.86	335.43
Environmental Engineer	16	HR	83.86	1,341.73
CAD Drafter	24	HR	42.87	1,028.81
Other Miscellaneous Direct Cost	1	LS	500.00	500.00
SUBTOTAL				**10,981.15**
PROJECT MANAGEMENT				
Project Manager	6	HR	87.21	523.24
Senior Environmental Engineer	30	HR	83.86	2,515.74
Administrative Support	16	HR	32.79	524.64
Other Miscellaneous Direct Cost	1	LS	300.00	300.00
SUBTOTAL				**3,863.62**
TOTAL				**22,675.10**

TABLE 2. COST ESTIMATE FOR WASH RACK CANOPY INSTALLATION AT LONG BEACH SITE

DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT COST ($)	TOTAL COST ($)
PERMITTING AND COORDINATION				
Senior Environmental Engineer	8	HR	83.86	670.86
Environmental Engineer	16	HR	83.86	1,341.73
CAD Drafter	16	HR	42.87	685.87
Permit Approval/Inspection Fees	1	LS	700.00	700.00
Other Miscellaneous Direct Cost	1	LS	300.00	300.00
SUBTOTAL				**3,698.46**
EQUIPMENT AND MATERIALS				
Washrack Canopy	1	EA	8,445.00	8,445.00
Taxes (8%) and Delivery Costs (3%)				928.95
Mark-up (10%)				937.40
SUBTOTAL				**10,311.35**
SITE WORK				
Contractor Mob/Demob	1	LS	1,200.00	1,200.00
Civil Installation				
Fill with Concrete- Drain Line From Hazardous Waste Storage Area to Oil/Water Separator	1	LS	500.00	500.00
Erection of the Canopy	1	LS	10,650.00	10,650.00
Field Observations				
Senior Environmental Engineer	30	HR	83.86	2,515.74
Environmental Engineer	30	HR	83.86	2,515.74
Other Miscellaneous Direct Cost	1	LS	250.00	250.00
As-Built Drawings				
Senior Environmental Engineer	8	HR	83.86	670.86
Environmental Engineer	16	HR	83.86	1,341.73
CAD Drafter	24	HR	42.87	1,028.81
Other Miscellaneous Direct Cost	1	LS	500.00	500.00
SUBTOTAL				**21,172.88**
PROJECT MANAGEMENT				
Project Manager	6	HR	87.21	523.24
Senior Environmental Engineer	30	HR	83.86	2,515.74
Administrative Support	16	HR	32.79	524.64
Other Miscellaneous Direct Cost	1	LS	300.00	300.00
SUBTOTAL				**3,863.62**
TOTAL				**39,046.31**

n:data\projects\arcom\eng.rep\longbeac.xls

6.0 REFERENCES

The following references were used in preparing this engineering report:

Federal Water Pollution Control Act (Clean Water Act), United States Code, Title 33

Code of Federal Regulations, 40 CFR Parts 400 through 471

California Code of Regulations, Title 23

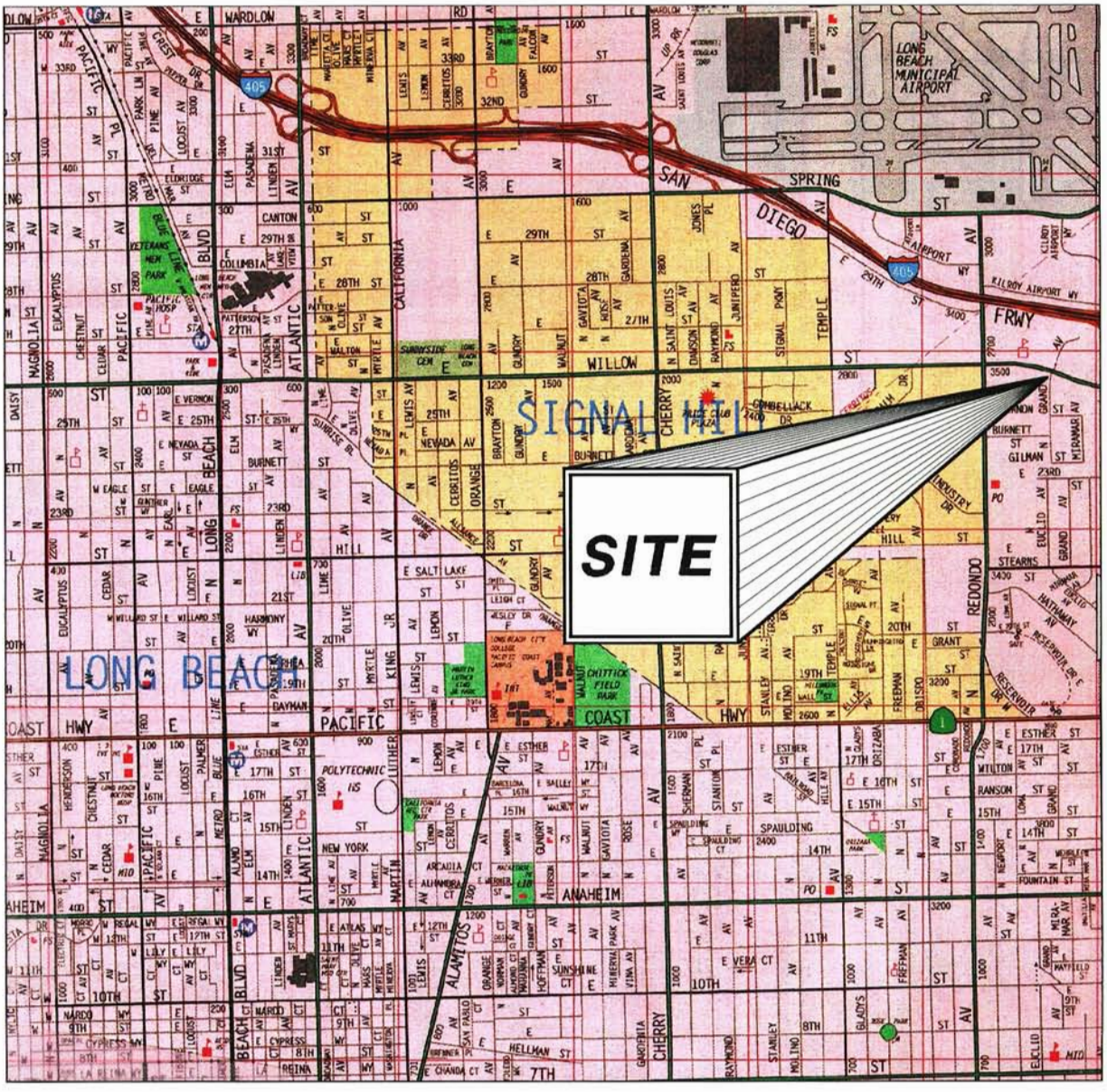
Los Angeles County Sanitation District, Wastewater Discharge Regulations

Los Angeles County Sanitation District, Storm Water Policy

U.S. Environmental Protection Agency, 1992, Guidelines for Preparation of Storm Water Pollution Prevention and Best Management Practices Plans: U.S. EPA, 832 R 92 006

Technical Manual, Central Vehicle Wash Facilities, Department of the Army, February 1992

tb-a1.dwg-10/11/98



Thomas Bros Maps, 1996
County: Los Angeles
Page: 795
Section: J-3

0 2,400 FEET
SCALE

N
W E
S

QST ENVIRONMENTAL
3545 HOWARD WAY, 2ND FLOOR
COSTA MESA, CA 92626-1418

DWG BY	BBN
DATE	01/26/99
REV BY	EC
REVISED	06/10/99

LOCATION MAP

U.S. ARMY RESERVE CENTER
63D REGIONAL SUPPORT COMMAND
LONG BEACH

FIGURE NO. 1

PROJECT NO. 64-97195G

DATE PLOTTED: 06/10/99

FILE: K:\DWGS\ARMYCORP\LNG-BECH\LM

APPENDIX A

SITE PHOTOGRAPHS

PHOTO NUMBER	DESCRIPTION
1	US ARMY RESERVE CENTER, MAIN ENTRANCE ON WILLOW STREET
2	PARTIAL VIEW OF MAIN BUILDING AND MAINTENANCE BUILDING, LOOKING FROM SOUTH TO NORTH
3	WASHRACK AREA LOOKING FROM WEST TO EAST
4	WASHRACK AREA, EXISTING OIL/WATER SEPARATOR AND STORM DRAIN CATCH BASIN
5	EXISTING OIL/WATER SEPARATOR, STORM DRAIN CATCH BASIN SANITARY SEWER CLEAN OUT
6	WASHRACK AREA TRENCH DURING DYE TESTING
7	INLET OF THE EXISTING OIL/WATER SEPARATOR DURING DYE TESTING
8	EXISTING OIL/WATER SEPARATOR DURING DYE TESTING
9	SANITARY SEWER CLEANOUT NEAR WILLOW STREET, LOOKING WILLOW STREET

PHOTO NO. 1: US ARMY RESERVE CENTER, MAIN ENTRANCE ON WILLOW STREET

PHOTO NO. 2: PARTIAL VIEW OF MAIN BUILDING AND MAINTENANCE BUILDING LOOKING FROM SOUTH TO NORTH

PHOTO NO. 3: WASHRACK AREA LOOKING FROM WEST TO EAST

PHOTO NO. 4: WASHRACK AREA, EXISTING OIL/WATER SEPARATOR, AND STORM DRAIN CATCH BASIN

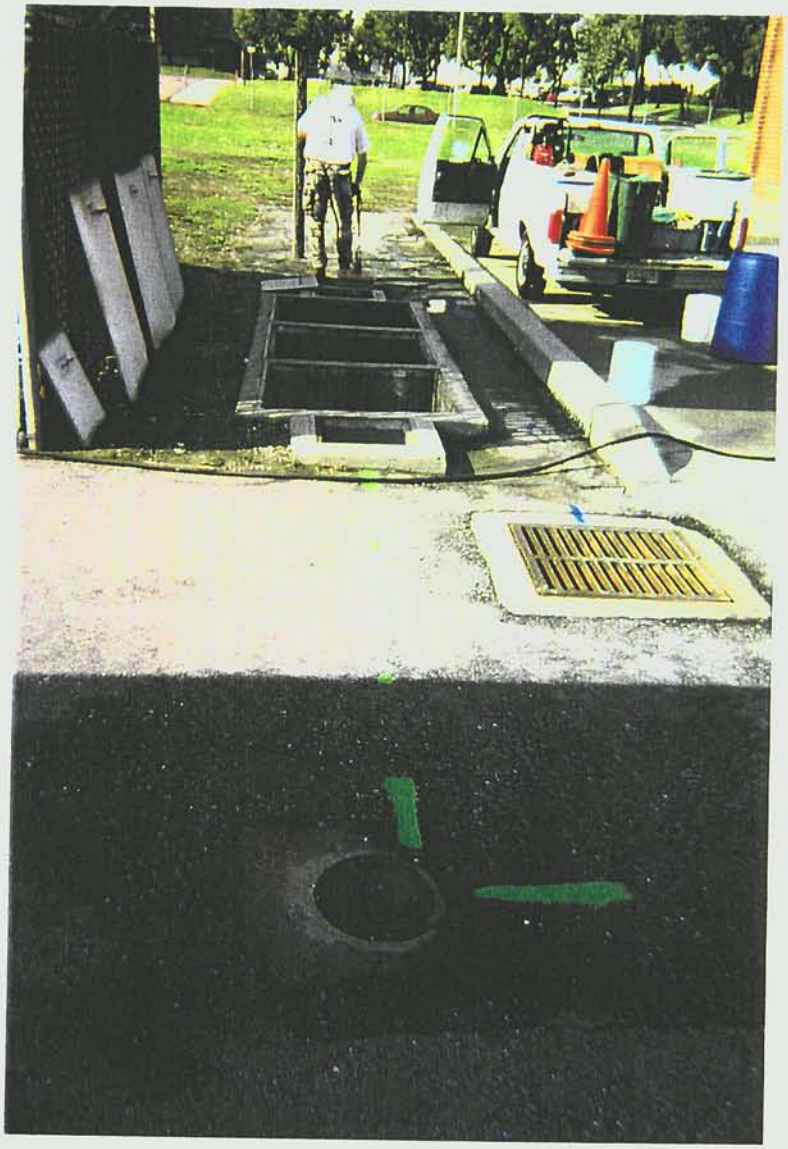


PHOTO NO. 5: EXISTING OIL/WATER SEPARATOR, STORM DRAIN CATCH BASIN, AND SANITARY SEWER CLEAN OUT

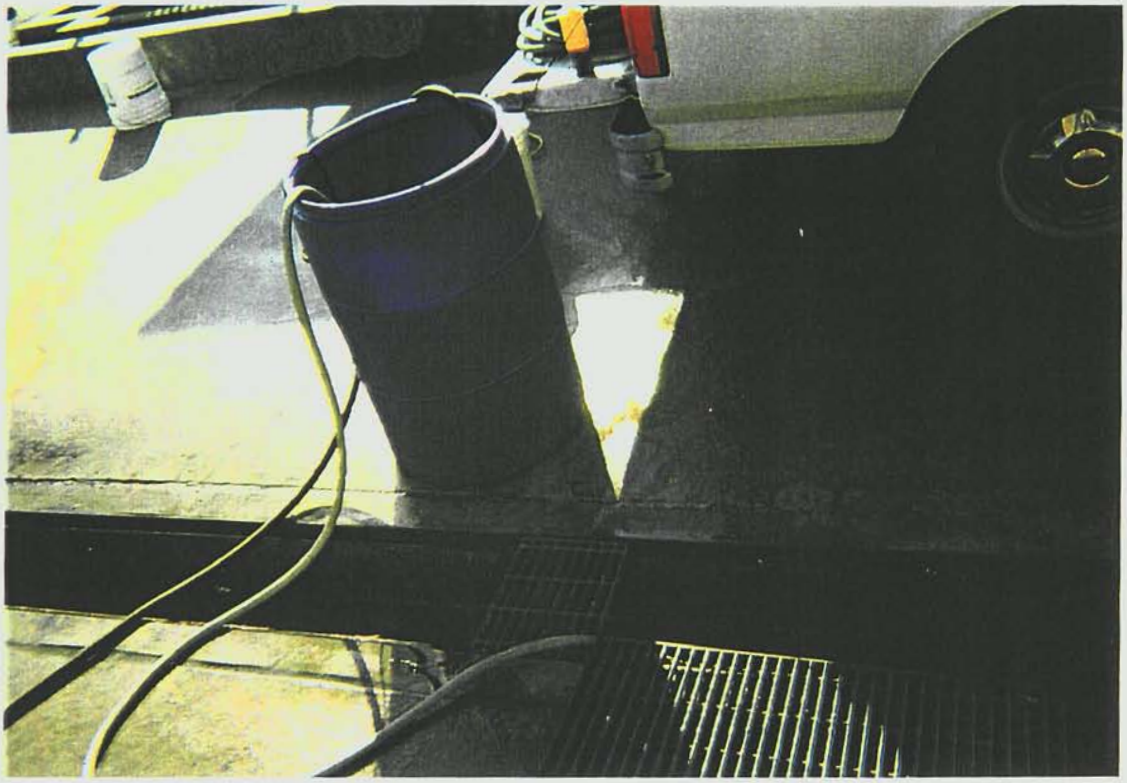


PHOTO NO. 6: WASHRACK AREA TRENCH DURING DYE TESTING

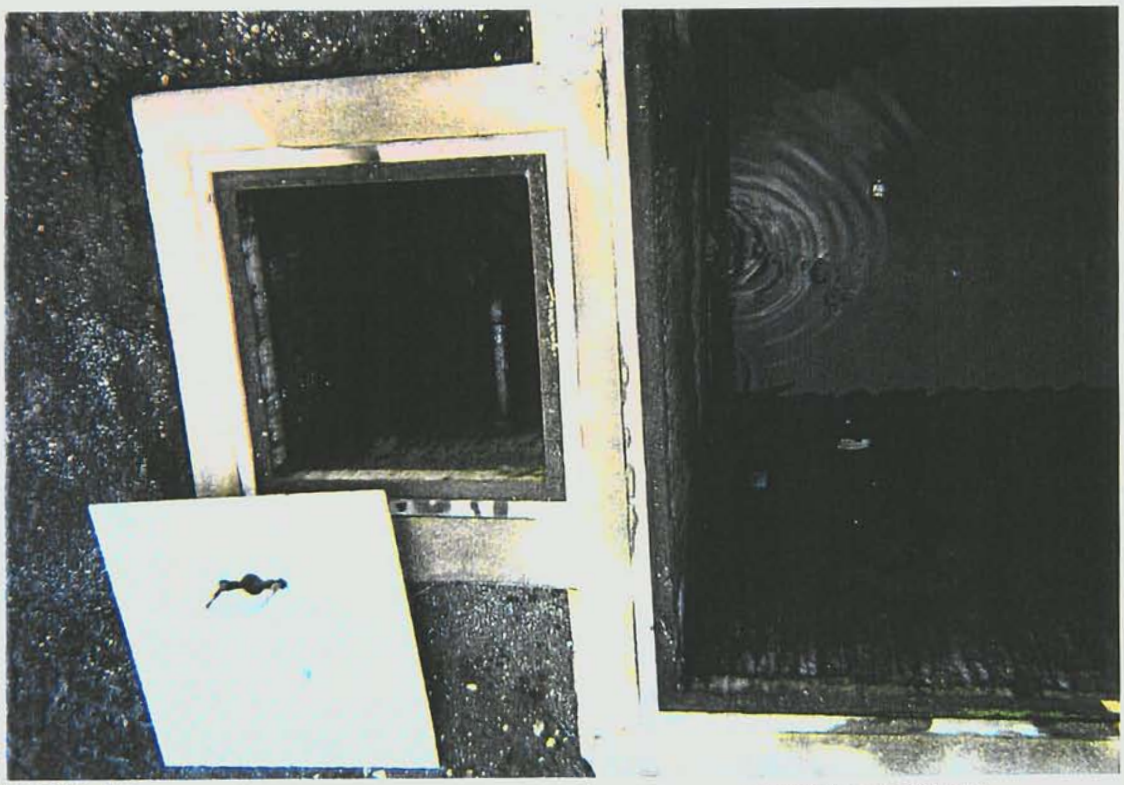


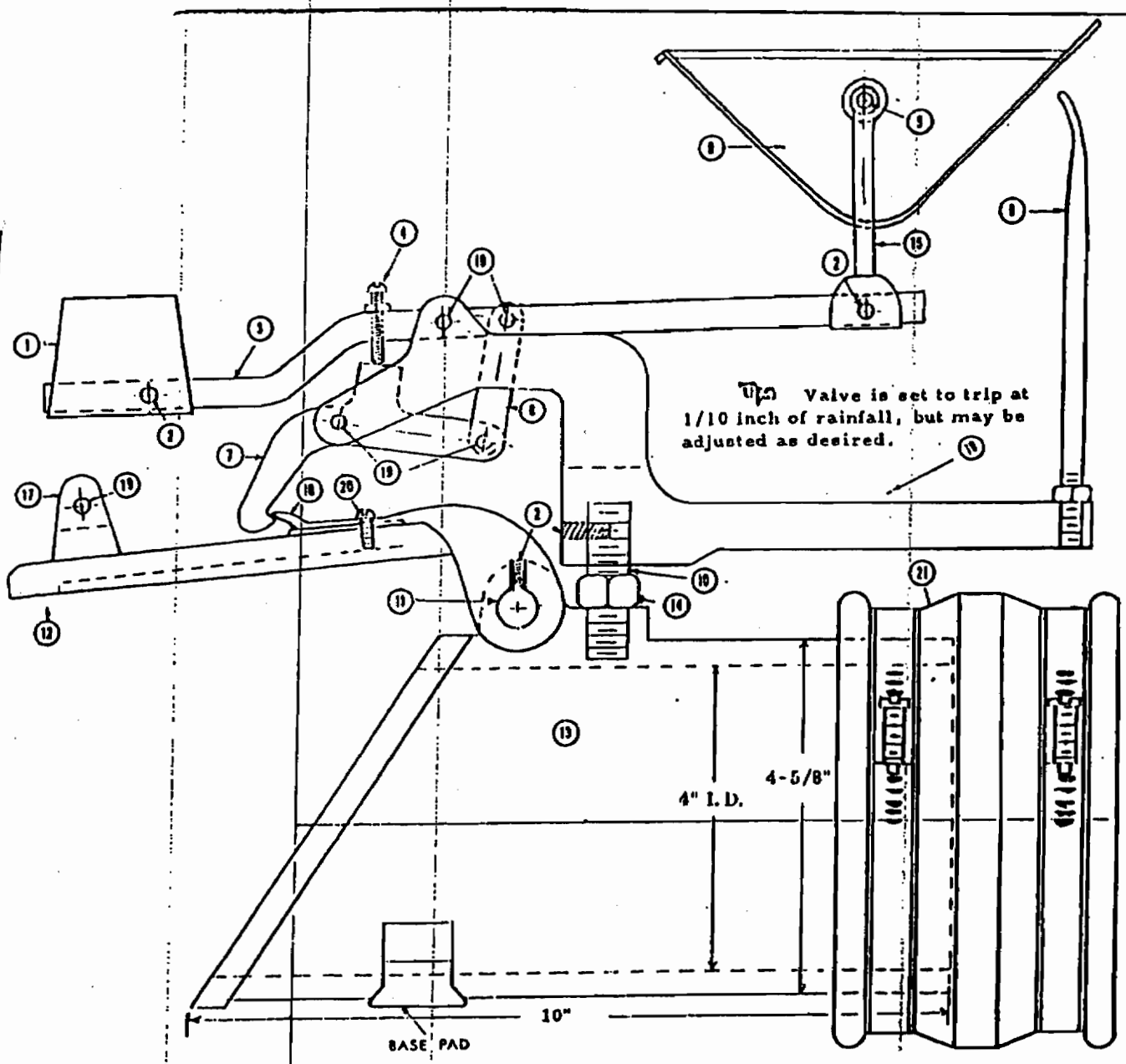
PHOTO NO. 7: INLET OF THE EXISTING OIL/WATER SEPARATOR DURING DYE TESTING

PHOTO NO. 8: EXISTING OIL/WATER SEPARATOR DURING DYE TESTING

PHOTO NO. 9: SANITARY SEWER CLEAN OUT NEAR WILLOW STREET
LOOKING FROM WILLOW STREET

APPENDIX B

RAIN WATER DIVERTER VALVE INFORMATION



DESCRIPTION

1. Brass Counter Wt.
2. 3/16" Set Screws
3. Balance Arm
4. Stop Screw
5. 3/16" Brass Swivel Pins
6. Linkage Arm
7. Trip Arm
8. Bucket Trip Rod
9. Bronze Bucket
10. Post 1/2" dia. brass
11. Hinge Pin - stainless steel
12. Brass Gate
13. Cast Brass Body
14. Lock Nut - brass
15. Cup Hinge
16. Gate Catch
17. Reset Hook
18. Pivot Unit Head
19. 3/16" Pins - stainless steel
20. Catch Adj. Screw
21. 4" Band Coupling with adjustable stainless steel bands

The TM Rainwater Valve is used in non-roofed areas where there are open drains to the sewer. It is designed to close automatically by means of a rain catcher. NO springs. NO electric motors. NO Solenoid switches. NO expensive maintenance costs. The TM Rainwater Valve should be used only in a valve box located on the sewer side on an industrial waste interceptor as per drawing, so that only clear water passes through the valve. For more information on industrial waste, contact your distributor.

(Note: Galvanized screened rain catcher included with valve)

Accessories:
Stainless steel reset cable with clevis, pin and nylon pull knob. Attaches at No. 17.

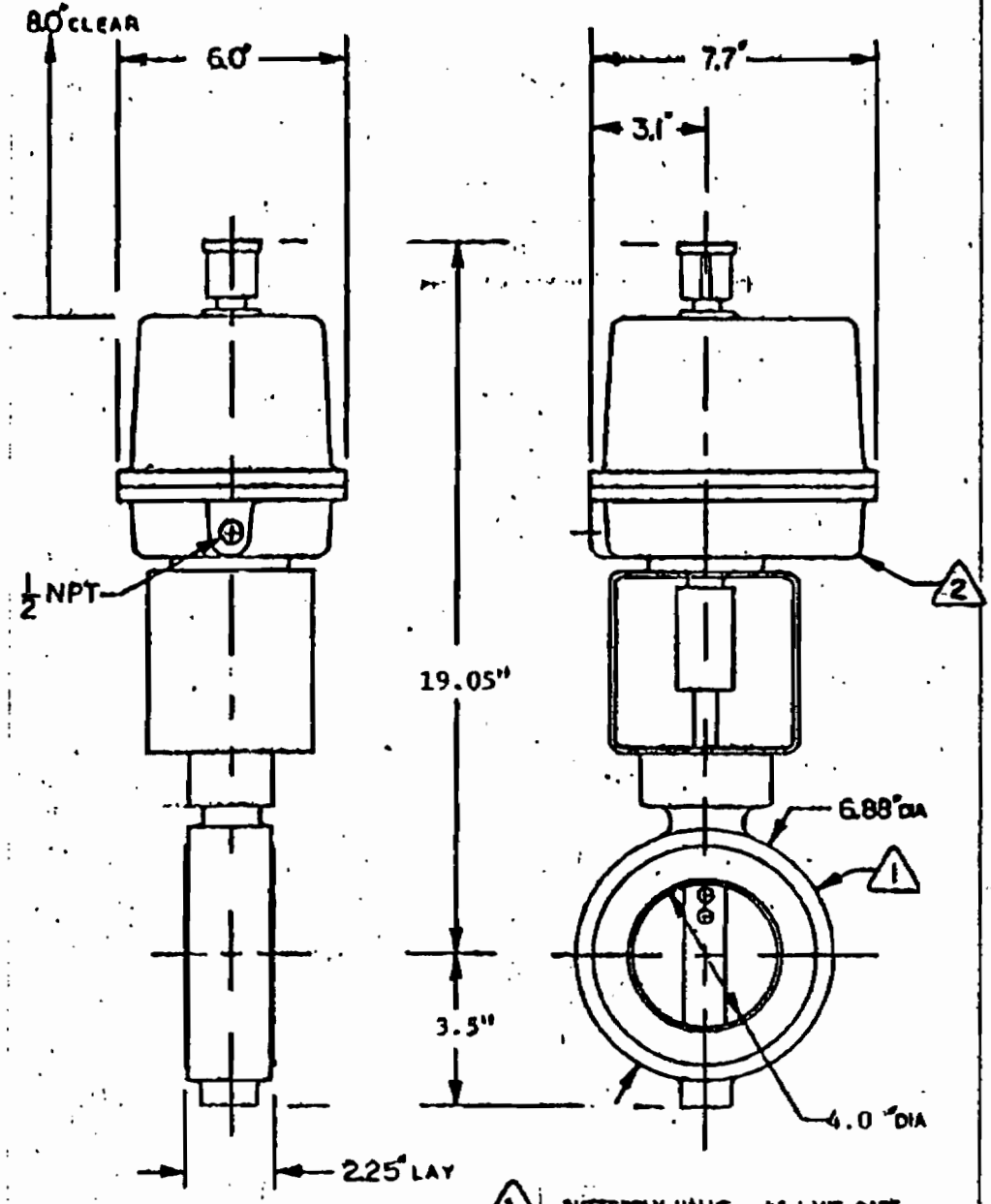
m.c. Nottingham co., inc.
P.O. Box 3037 • 2926 West First Street
Santa Ana, California 92703

TM RAIN WATER VALVE

5-10-66

4" DIA.	MODEL B-5A	SCALE: 1/2"=1'-0"

ELECTRICAL RAINWATER DIVERTER VALVE



1 - BUTTERFLY VALVE - 4" LINE SIZE

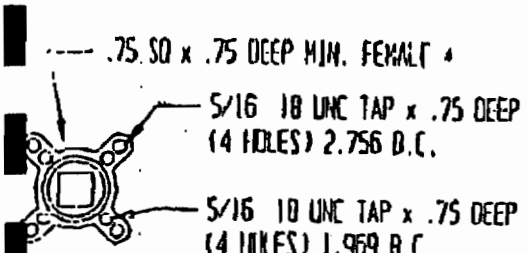
2 - ELECTRIC ACTUATOR - MAR-25-10-BRAKE

115V 60HZ 1PH

	BY	DATE	BUTTERFLY VALVE - 4" LINE SIZE ELECTRIC ACTUATOR
DR	LG	7-7-75	
CH			
APP			

ACTUATOR MOUNTING

SV- Series mounting pattern



* 0.64 DEEP MIN. FOR HAZARDOUS LOCATION ACTUATORS

LV-Series mounting pattern

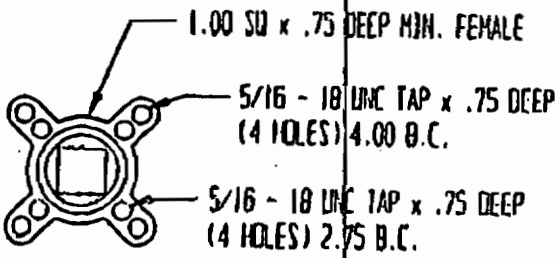
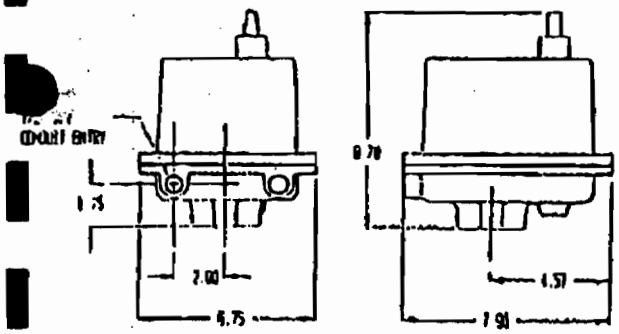
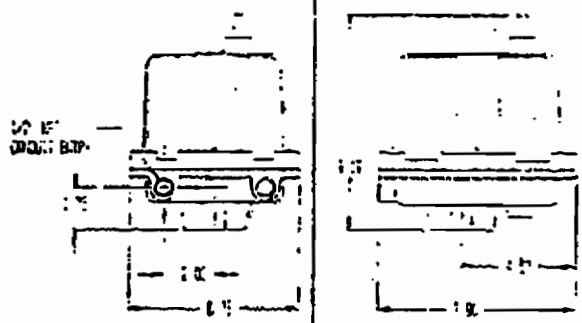


Figure 4 Actuator mounting

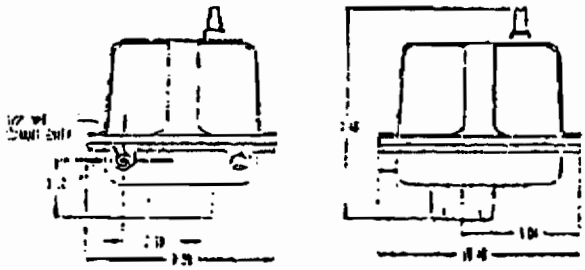
VW-Series



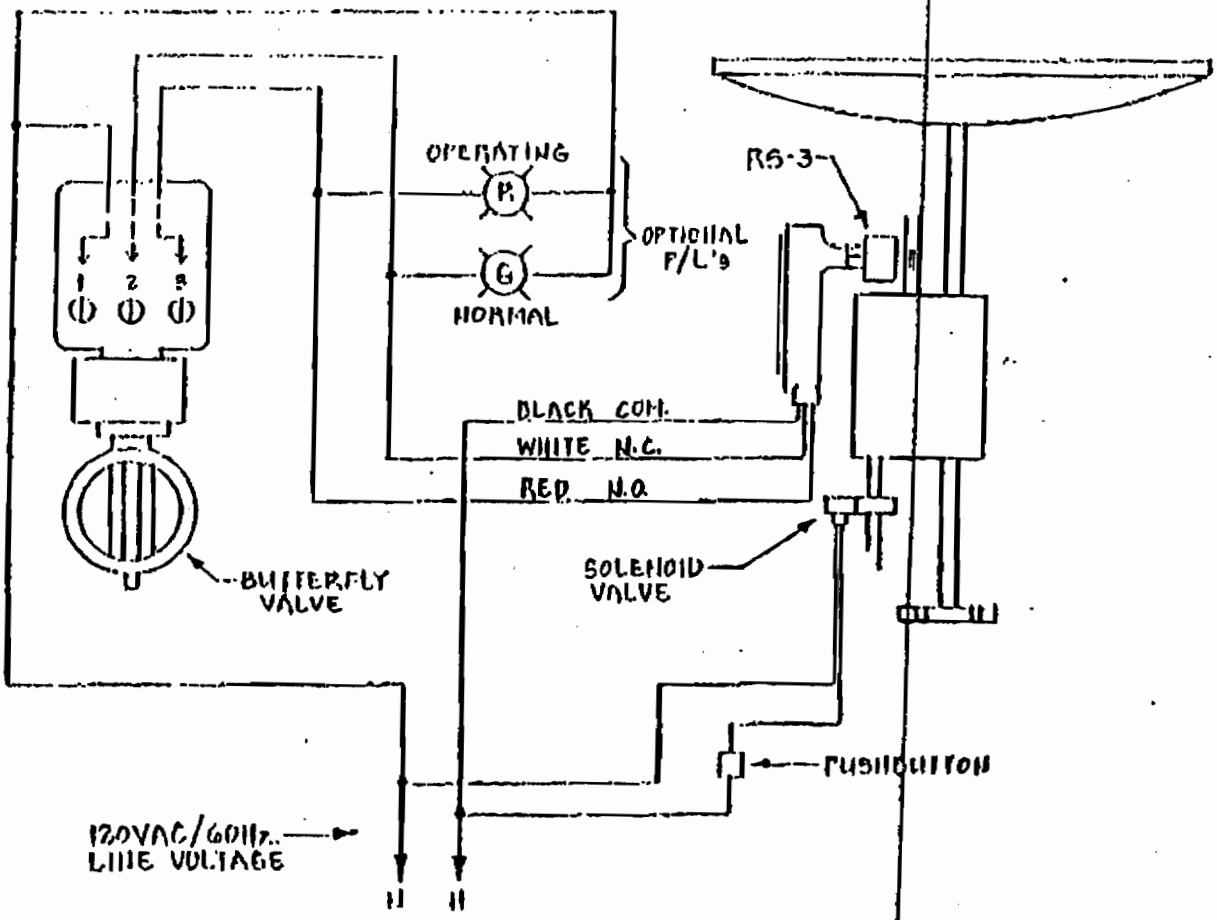
VX-Series



LVW & LVX Series



VALVCON Corporation
P.O. Box 901, Milford, NH 03055
TELEPHONE: (603) 654-6111 — FAX: (603) 654-9050
SHIP TO: PINE VALLEY MILL BLDG., ELM ST., WILTON, NH 03086



PUMP CONTROL:

IF THE RAINSWITCH IS BEING USED TO CONTROL A PUMP, USE THE N.O. OR THE N.C. WIRE DEPENDING ON NORMAL OPERATION OF THE PUMP.

ELECTRIC RESET RAINSWITCH:

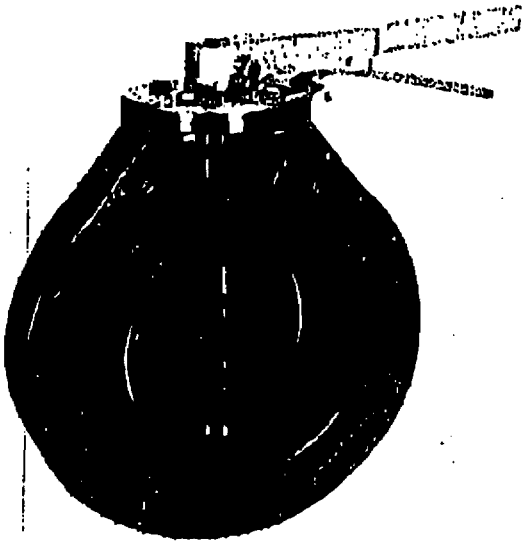
THIS IS THE WAY YOU WOULD WIRE CONTROL IF YOU WANT TO CLOSE BUTTERFLY VALVE WHEN IT RAINS. TO OPEN BUTTERFLY VALVE WHEN IT RAINS JUST REVERSE THE N.O. & N.C. WIRES FROM RAINSWITCH TO BUTTERFLY VALVE. TO WIRE IN LIGHT INDICATION, WIRE IT TO N.O. SIDE OF SWITCH.

MANUAL RESET RAINSWITCH:

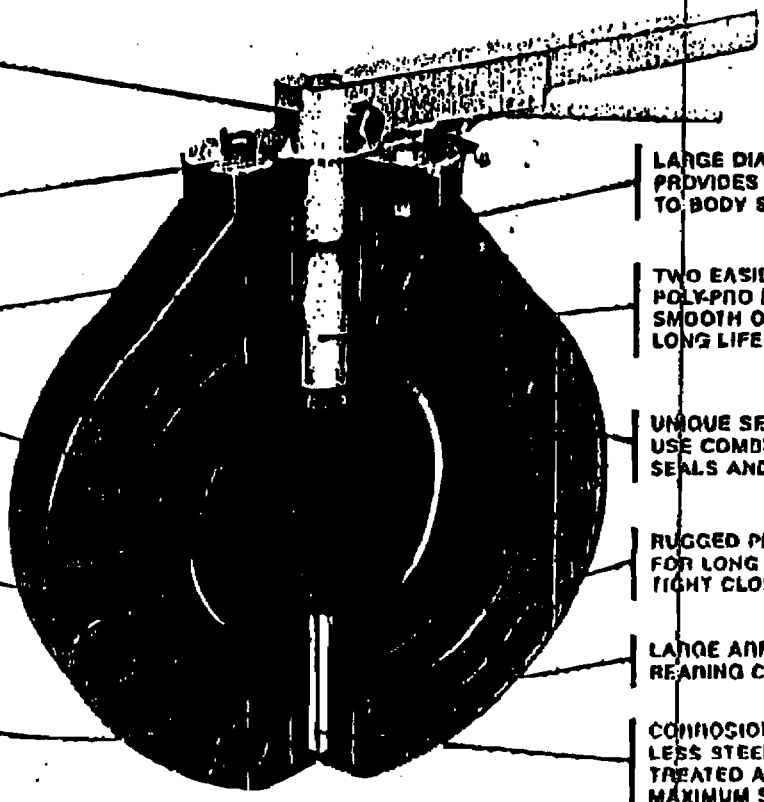
THE SOLENOID AND PUSHBUTTON ARE REPLACED BY A MANUALLY ACTUATED DRAIN VALVE.

RAINSWITCH			
SOLD TO:		CUSTOMER:	
DRAWN BY: P.L.	DATE 6/27/07	CHECKED BY:	DATE
SCALE: NONE	DWG. NO.: JICO-JBRS-003	SHEET 1 OF 1	

BUTTERFLY VALVE



- UNIQUE DESIGN "TRIPLE SEAL" FOR MAXIMUM RELIABILITY
- FULL FACE DESIGN ASSURES POSITIVE FLANGE SEALING
- UP TO 50% LIGHTER THAN METAL VALVES
- DISK DESIGNED FOR OPTIMIZED STRENGTH/C, PERFORMANCE
- ENGINEERED TO ACCOMODATE MOST POPULAR ACTUATORS — ELECTRIC, PNEUMATIC AND HYDRAULIC
- TEN POSITION INDEX PLATE FOR PRECISE CONTROL
- MAXIMUM FLOW — I.D. EXCEEDS SCHEDULE 80 PIPE
- PRESSURE RATED TO 150 psi, TEMPERATURES TO 140°F
- EVERY VALVE HYDROSTATICALLY TESTED, INSPECTED AND PERFORMANCE CERTIFIED BY COLONIAL ENGINEERING
- KITS AVAILABLE FOR FIELD REPAIR
- VALVE ASSEMBLY INCLUDES LEVER HANDLE



RUGGED, ZINC BASED ALLOY FOR MAXIMUM CORROSION RESISTANCE

EASY TO READ CADMIUM PLATED 10 POSITION INDEX PLATE

HEAVY DUTY 1 PIECE BODY—RESISTS ATMOSPHERIC CORROSION

BOLT PATTERN MEETS ANSI, DIN SPECIFICATIONS AND AWWA DIMENSIONAL STANDARDS

INTEGRAL "O" RING PROVIDES TOTAL PROTECTION AGAINST ENVIRONMENTAL LEAKAGE AND BOOT PULL-OUT

LOCKING BAND PREVENTS BOOT SHIFTING AND PROVIDES POSITIVE DISC SEAL

LARGE DIAMETER "O" RING PROVIDES POSITIVE SHAFT TO BODY SEAL

TWO EASILY REPLACEABLE POLY-PRO BEARINGS FOR SMOOTH OPERATION AND LONG LIFE

UNIQUE SECONDARY SEALS USE COMBINATION OF LIP SEALS AND "O" RINGS

RUGGED PRIMARY SEAL DESIGN FOR LONG LIFE AND BUBBLE TIGHT CLOSURE

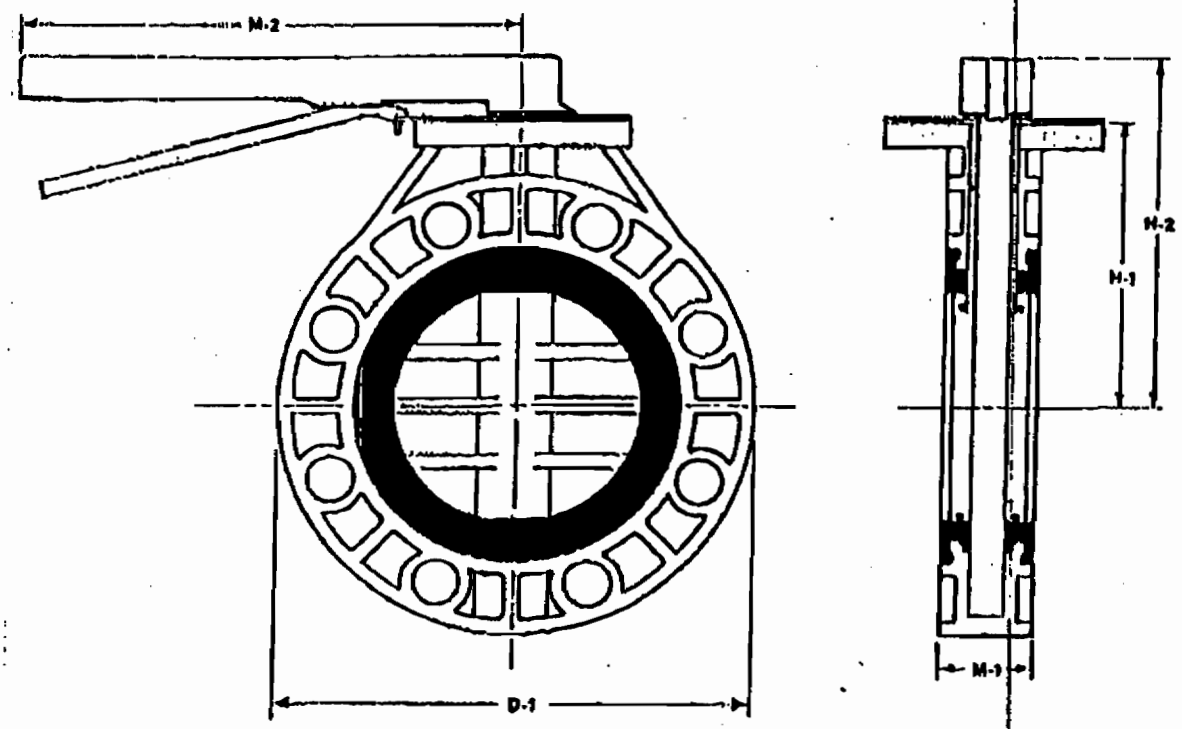
LARGE AREA, HIGH STRENGTH, BEARING CONSTRUCTION

CORROSION RESISTANT STAINLESS STEEL SHAFT, HEAT TREATED AND TEMPERED FOR MAXIMUM STRENGTH

REPLACE CORRODED METAL VALVES — INSTALL CORROSION RESISTANT **Colonial**
THERMOPLASTIC BUTTERFLY VALVES — DIMENSIONS COMPATIBLE

PVO
EPDM BODY
EPDM "O" RINGS

SIZE	PART NO.	
3"	V30311N	
4"	V40311N	
6"	V60311N	



DIMENSIONS

SIZE	3"	4"	6"
M-1	1.76	2.00	2.13
M-2	8.80	10.00	12.13
N-1	4.87	6.13	8.69
N-2	6.32	7.45	9.20
D-1	7.50	9.00	11.19

FLOW COEFFICIENT — C_v BUTTERFLY VALVES

	DEGREES OPEN									
SIZE	10	20	30	40	50	60	70	80	90
3"	9	12	30	66	90	115	159	215	260
4"	5	26	69	92	148	243	383	503	550
6"	11	84	116	204	323	520	753	1055	1235

C_v is the number of GPM of water at 73°F that will pass through a given flow restriction at a pressure drop of 1 psi.

BOLT SPECIFICATIONS

Pipe Size	Number Flange Holes	USS Std. Hex Head Bolt Dia.	USS Std. Hex Head Bolt Length	USS Std. Hex Nut Size	SAE Std. Flat Washer Size	SAE Std. Flat Washer O.D.	Recommended Torque (Ft.Lbs.)
3"	8	5/8	*4 1/2	5/8	5/8	1 5/16	20-30
4"	8	5/8	*5 1/2	5/8	5/8	1 5/16	20-30
6"	8	3/4	*6	3/4	3/4	1 1/2	35-50

*For Sch. 80 Thermoplastic or Cast Iron One Piece Flanges.

OPERATING TORQUE

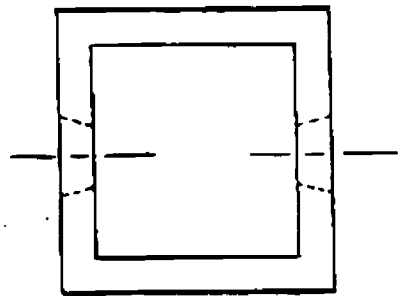
	INCH POUNDS	
SIZE	OPENING	CLOSING
3"	225	200
4"	325	300
6"	520	480

MAXIMUM OPERATING PRESSURE 150 psi

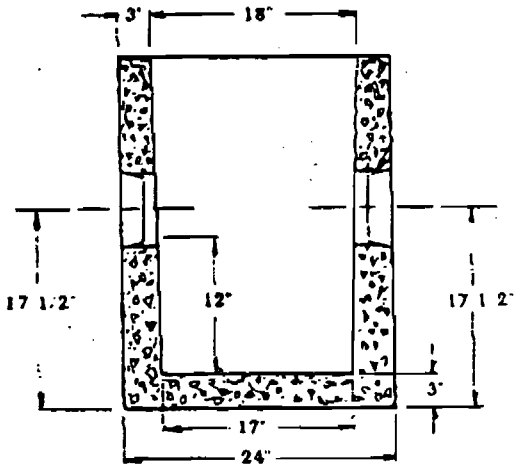
Temperature De-Rating Table

Temp °F	PVC	CPVC	PP	PVDF
100	150	150	150	150
120	100	150	125	150
140	50	125	100	150
160		100	50	140
180		75	50	120
200		50		100
220				80
240				60
280				40

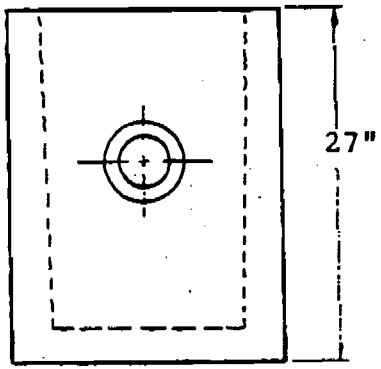
PVC (Polyvinyl Chloride) Most popular specified thermoplastic material. Used extensively in water lines, plating and chemical drainage. Subject to attack by aromatics, chlorinated organic compounds, some hydrocarbons, polar solvents and keytones. Maximum operating temperature is 140°F.



PLAN VIEW



SECTION



SIDE VIEW

NOTES:

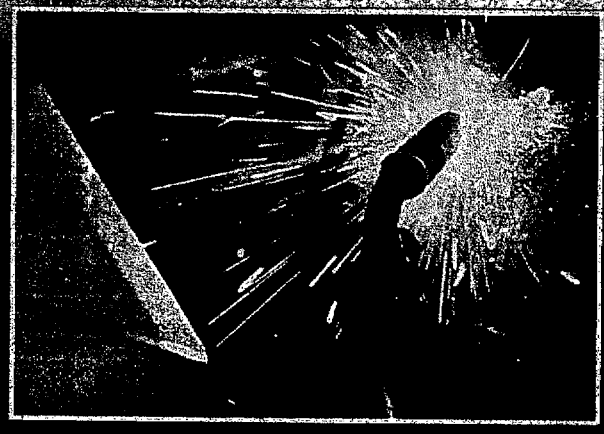
1. SAMPLE BOX MAY BE FITTED WITH VARIOUS COVERS. COVER MAY BE AS SHOWN ON DWG. NO. 1112, #1/#4 OR 1118, #1/#4 OR 1119 #1/#4 ALL OF WHICH CAN BEE SUPPLIED LOOSE OR CAST IN THE TOP OF THE SAMPLE BOX. 1603 AND 1603 B-G AS SHOWN ON DWG. NO. 1124 MAY BE SUPPLIED LOOSE
2. CONCRETE TYPE II PORTLAND CEMENT ASTM C-260-86. SIX SACK READY MIX. MINIMUM COMPRESSIVE STRENGTH 3,000 PSI AT 28 DAYS.
3. REINFORCING BAR ASTM A 615. GRADE 40. REINFORCING BAR SIZE NO. 3 .
4. SECONDARY REINFORCING : COLLATED FIBRILLATED POLYPROPLYENE FIBER.
5. FOR COMMERCIAL USEAGE INTERIOR SURFACES SHALL BE COATED WITH ASPHALT BASED BITIMINIOUS WATERPROOFING CONFORMING TO ASTM D 41-78 AND 449-73. INDUSTRIAL SAMPLE BOXES ARE SUPPLIED UNCOATED.

DRAWING NO. 1128	IN LINE VALVE BOX
SCALE: 3/4" = 1'-0"	
SHEET 1 OF 1	
DATE: 7 ; 15 . 87	m.c. Nottingham co., inc.
DRAWN BY	P.O. Box 3037 • 2926 West First Street
CHKD BY	Santa Ana, California 92703 • (714) 953-6700

APPENDIX C

PRE-ENGINEERED HAZARDOUS MATERIALS STORAGE CONTAINER INFORMATION

Material Storage From One Source



Global Competence

For over a decade P&D has been designing, manufacturing, and marketing equipment for the safe storage of hazardous chemicals. With operations not only in the United States, but also in six European countries, P&D is the World's Market Leader in Spill Containment Systems.

Pallets 1

Containers 2

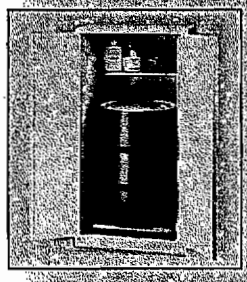
Custom Applications 3

P&D INFORMATION 1

Spill Containment Pallet Systems

P&D offers a full range of Spill Containment Pallet Systems for storing and dispensing 1 to 8 drums, IBCs, and smaller containers. P&D's value-added superior quality and rugged construction offer extended utility for continuous duty under harsh industrial conditions!

Flammable Storage Cabinets

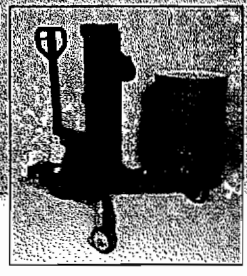


Store up to 120-gallons of flammable and combustible materials safely and securely in work areas in accordance with NFPA and OSHA. Also available, storage cabinets for Paints and Inks, Pesticides, and Acids and Corrosives.

Rack & Shelving Systems

P&D offers unique solutions for the storage of hazardous materials on shelves and racks. Four styles are available to meet all types of storage needs: Containment Shelving, Sump Inserts for Pre-Existing Pallet Racks, Knock-Down Containment Racks and Transport Racks.

Drum Handling Equipment



Drum Handling Equipment is available to load, maneuver and place 55-gallon drums safely and securely. The newest addition is the Corner Drum Lifter which hugs pallet corners in order to place 55-gallon drums.

Overpacks, Spill Kits & Accessories

Hazardous Material:

A chemical or substance which presents a health, physical, or fire hazard, whether in a new or waste condition. Hazardous materials are designated and regulated by the EPA under EPCRA, and their reportable quantities are found in Title III of SARA. Refer to the MSDS for more information regarding a chemical's characteristics.

Spill Containment Sump:

As required by EPA, NFPA, and UFC, the containment sump or "catch basin" underlies containers storing or dispensing hazardous materials in order to prevent spills from escaping into and damaging the environment or endangering personnel within a facility. The construction must be liquid-tight, accessible for visual inspection, and compatible with materials stored.

Containment Regulations:

EPA - 40 CFR Subpart I - 264-175 - Containment

(a) Container storage areas must have a containment system that is designed and operated in accordance with paragraph (b) of this section. ...

(b) A containment system must be designed and operated as follows:

(1) A base must underly the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.

(2) ...the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.

(3) The containment system must have sufficient capacity to contain 10% of the volume of the containers or the volume of the largest container, whichever is greater.

Compliance Acronyms:

EPA	Environmental Protection Agency
CFR	Code of Federal Regulations
NFPA	National Fire Protection Agency
OSHA	Occupational Safety & Health Administration
SARA	Superfund Amendments & Reauthorization Act
UFC	Uniform Fire Code

Eco-Sumps: Two Styles of Spill Sumps

- ***Sump Only - "Without Feet"***
- ***Sump with Forklift Pockets***

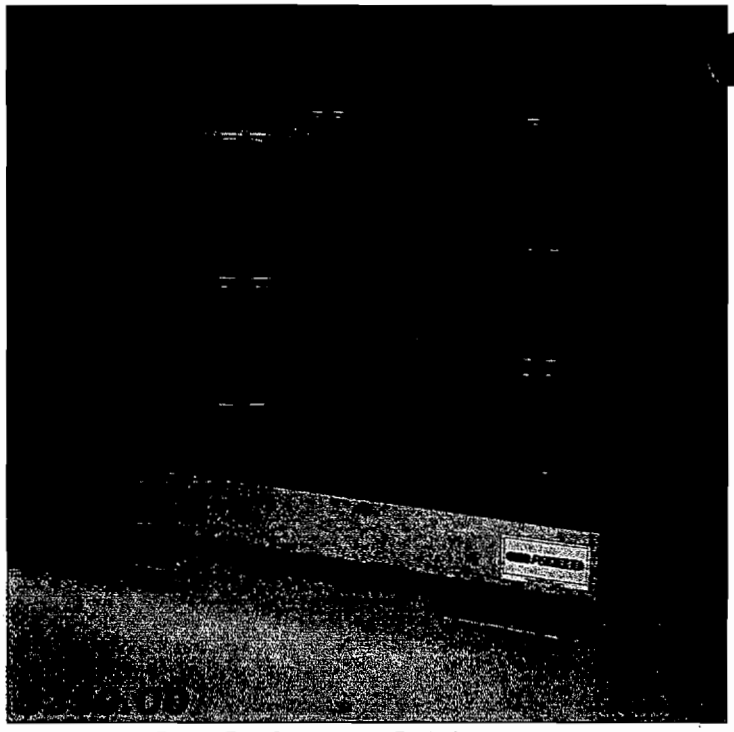
Perfect for use with pre-existing racks. Eco-sumps can be designed to fit under any size rack in order to bring it into compliance.

- *Sump volumes exceed EPA & UFC requirements*
- *Sump welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Sump of heavy duty, galvanized steel*
- *Use in combination with Horizontal Dispensing Racks*

UFC - 8003.1.3.4 Containment pallets.

...containment pallets shall comply with the following:

1. *A liquid-tight sump accessible for visual inspection shall be provided,*
2. *The sump shall be designed to contain not less than 66 gallons (249.8 L),*
3. *Exposed surfaces shall be compatible with materials stored, and*
4. *Containment pallets shall be protected to prevent collection of rainwater within the sump.*



K15-1007: 4 Drum Eco-Sump with Forklift Pockets

Outside Dimensions	L x D	(in)	52 x 28	52 x 28	52 x 52	52 x 52
Overall Height		(in)	11	15	6	10
Shipping Weight		(lbs)	106	116	133	143
Sump Volume		(gal)	66	66	66	66
Load Capacity		(lbs)	1200	1200	2400	2400
Storage Capacity		(55 gal. drums)	2	2	4	4
Price			**$213.00**	**$227.00**	**$299.00**	**$359.00**

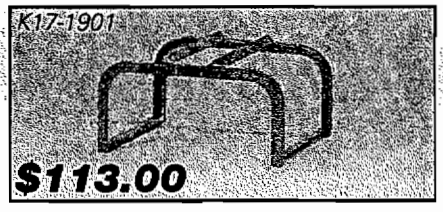
Horizontal Dispensing Racks:

Quickly and easily turn any spill containment pallet into a dispensing station.

- *Use with any P&D Pallet or Storage System*
- *Heavy gauge steel frame*
- *Easy to maneuver*

WARNING
Regulations require grounding when dispensing Flammable and Combustible Materials

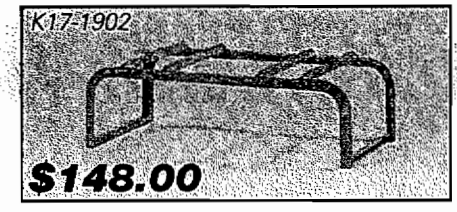
K17-1901



$113.00

Capacity: *One 55-gallon drum*
Dimensions: *24"L x 24"D x 14"H*
Shipping Weight: *48 lbs.*

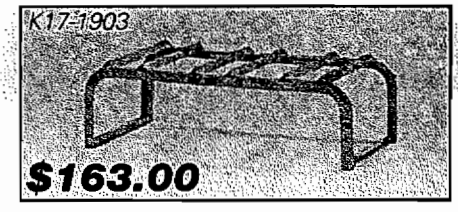
K17-1902



$148.00

Capacity: *Two 55-gallon drums*
Dimensions: *48"L x 24"D x 14"H*
Shipping Weight: *70 lbs.*

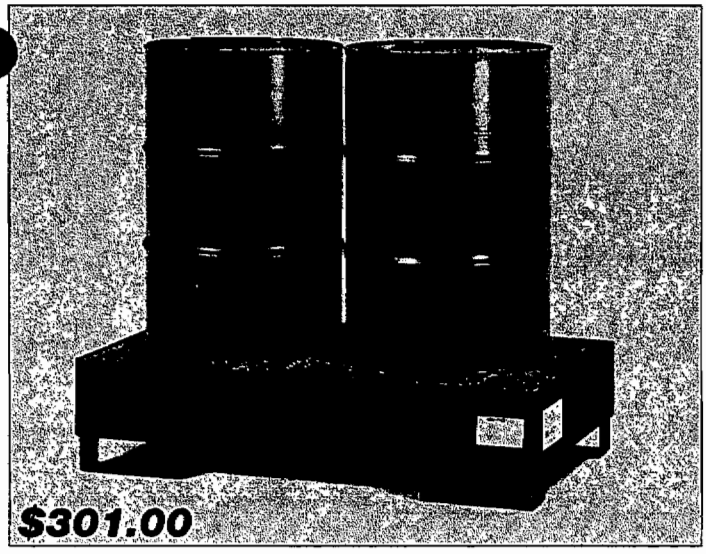
K17-1903



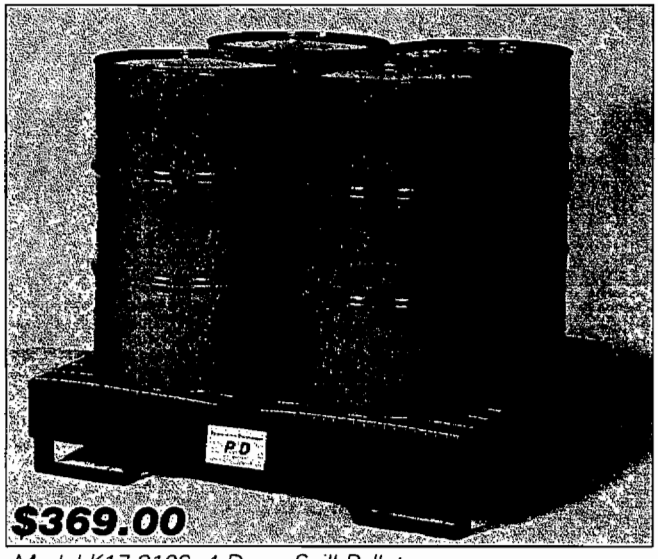
$163.00

Capacity: *Three 16-gallon drums*
Dimensions: *48"L x 24"D x 14"H*
Shipping Weight: *83 lbs.*

SPILL CONTAINMENT PALLETS



Model K17-3102: 2 Drum Spill Pallet

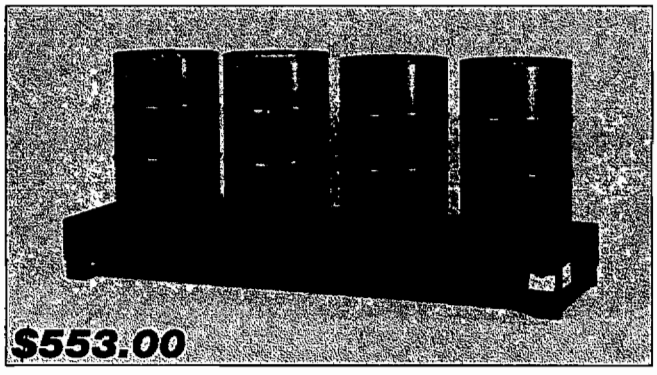


Model K17-3103: 4 Drum Spill Pallet

- *Sump of heavy gauge steel for extended life*
- *Sump volumes exceed EPA & UFC requirements*
- *Sump welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Easily removable, galvanized steel grating*
- *Four-way forkliftable*
- *Greater sump volumes available upon request*

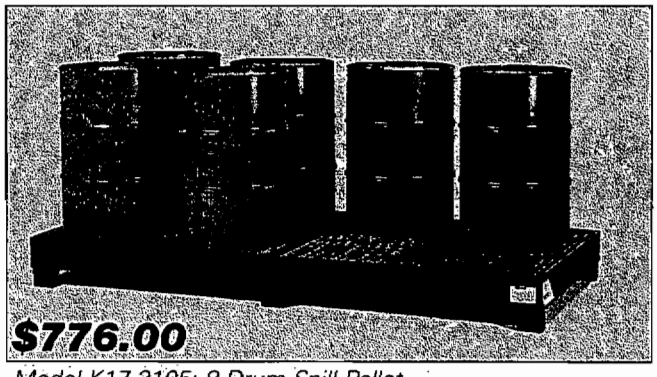
EPA - 40 CFR 264.175

(1) A base must underly the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;



Model K17-3104: 4 Drum In-line Spill Pallet

Model K17-3101: 1 Drum Spill Pallet



Model K17-3105: 8 Drum Spill Pallet

			K17-3101	K17-3102	K17-3103	K17-3104	K17-3105
Outside Dimensions	L x D	(in)	34 x 34	54 x 34	54 x 50	107 x 34	107 x 50
Overall Height		(in)	18	14	10	10	10
Shipping Weight		(lbs)	165	205	270	357	525
Sump Volume		(gal)	66	66	66	66	110
Load Capacity		(lbs)	600	1200	2400	2400	4800
Storage Capacity		(55 gal. drums)	1	2	4	4	8
Price			**$291.00**	**$301.00**	**$369.00**	**$553.00**	**$776.00**

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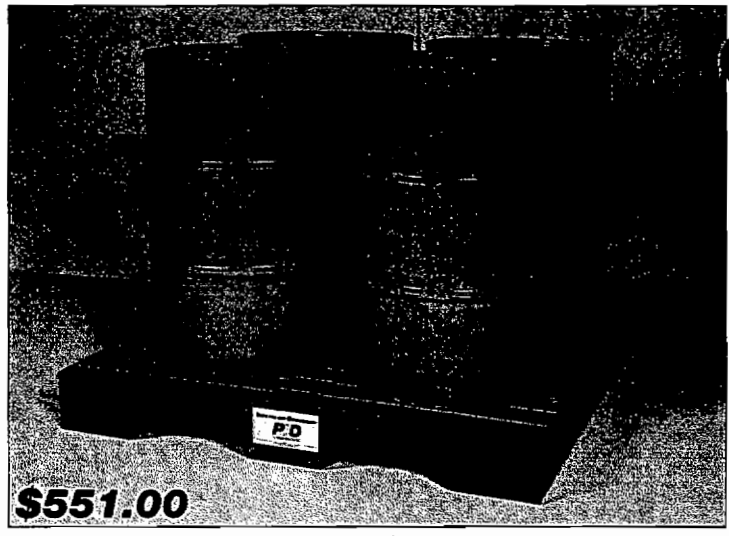
SPILL CONTAINMENT PALLETS

Low Profile Pallets

Low Profile Pallets hold drums over a 7" deep sump with "built-in" forklift pockets

- *Sump of heavy gauge steel for extended life*
- *Sump volumes exceed EPA & UFC requirements*
- *Easily removable, galvanized steel grating*
- *Coated with a durable, corrosion resistant finish*

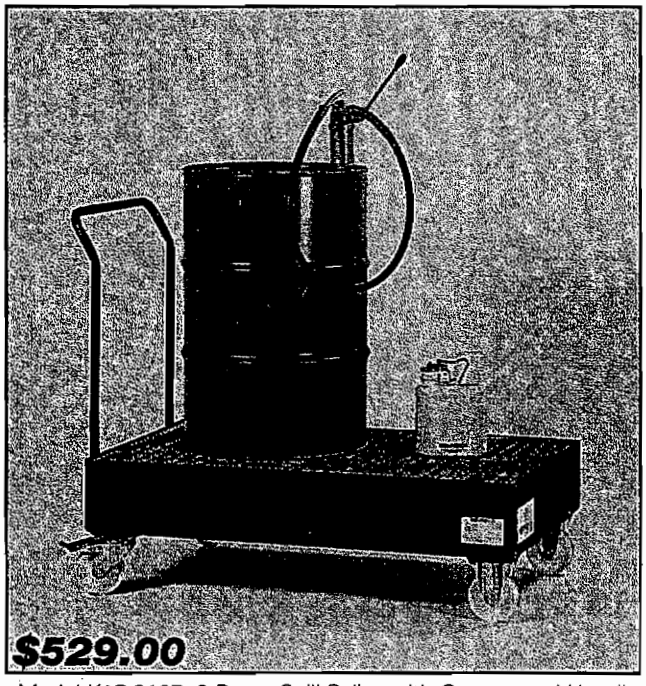
MODEL #			K17-3119
Outside Dimensions	L x D	(in)	52 x 52
Overall Height		(in)	7
Shipping Weight		(lbs)	301
Sump Volume		(gal)	66
Load Capacity		(lbs)	2400
Storage Capacity		(55 gal. drums)	4
Price			**$551.00**



Model K17-3119: 4 Drum Low Profile Pallet

UFC - 8003.1.3.4 Containment pallets

1. A liquid-tight sump accessible for visual inspection shall be provided.
2. The sump shall be designed to contain not less than 66 gallons (249.8 L).



Model K17-3107: 2 Drum Spill Pallet with Casters and Handle

Pallets With Casters & Handle

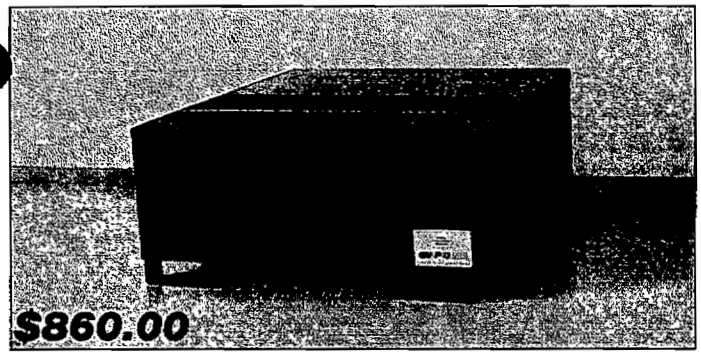
Spill Containment Pallets can be equipped with Casters (Two Locking, Swivel and Two Fixed) and a Handle for easy manual transportation of materials. A nylon transport belt is included to secure one drum.

- *Sump of heavy gauge steel for extended life*
- *Sump volumes exceed EPA requirements*
- *Sump welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Coated with a durable, corrosion resistant finish*
- *Casters may be used with most pallets*

Model K17-3106: 1 Drum Spill Pallet with Casters and Handle

MODEL #			K17-3106	K17-3107
Outside Dimensions	L x D	(in)	34 x 34	54 x 34
Overall Height		(in)	40	40
Height from ground to grating		(in)	19	15
Shipping Weight		(lbs)	165	205
Sump Volume		(gal)	66	66
Load Capacity		(lbs)	600	1200
Storage Capacity		(55 gal. drums)	1	2
Price			**$516.00**	**$529.00**

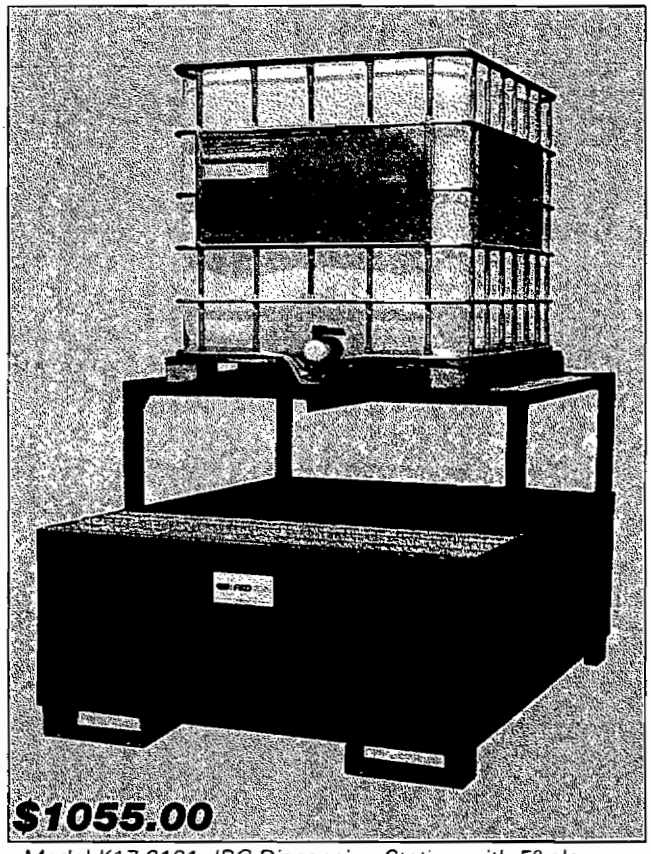
SPILL CONTAINMENT PALLETS FOR IBC's



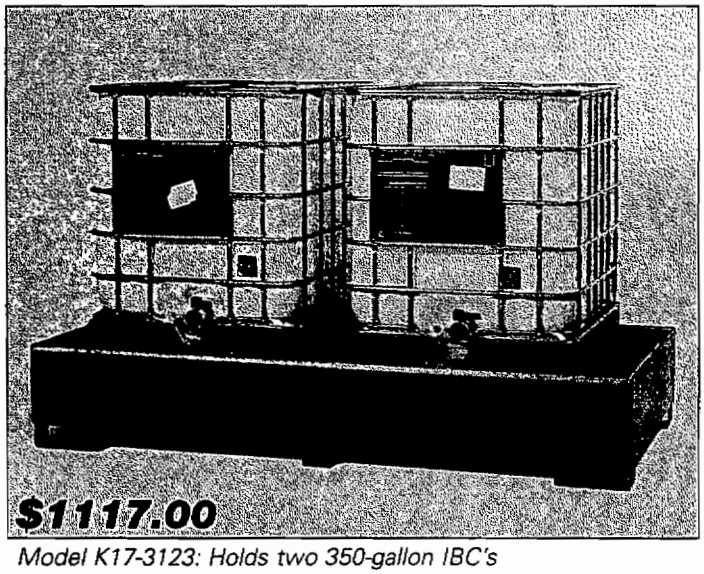
Model K17-3120: 53"x 72" IBC Spill Pallet

Safely store and dispense hazardous chemicals in Intermediate Bulk Containers (IBCs). Sumps are available in a wide variety of volumes to fit all major IBC styles and brands!

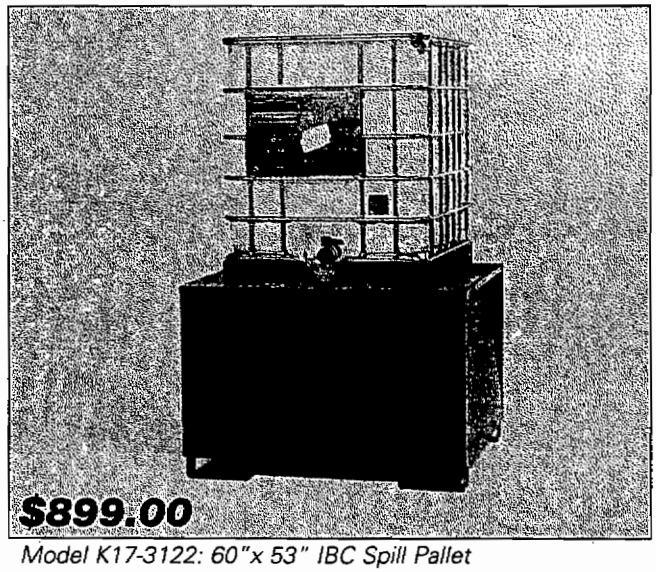
- *Sump of heavy gauge steel for extended life*
- *Sump volumes exceed EPA and UFC requirements*
- *Greater sump volumes available upon request*
- *Sump welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Easily removable, galvanized steel grating*
- *Coated with a durable, chemical resistant finish*
- *K17-3121 has a solidly welded, tubular frame construction*
- *Weight and footprint should be provided for proper grating support*



Model K17-3121: IBC Dispensing Station with 5° slope



Model K17-3123: Holds two 350-gallon IBC's



Model K17-3122: 60"x 53" IBC Spill Pallet

WARNING:

IBC Pallets are NOT for transport!

IBCs & sumps are to be transported separately

Outside Dimensions	L x D (in)	53 x 72	53 x 72	60 x 53	120 x 53
Overall Height	(in)	28	48	33	20
Shipping Weight	(lbs)	550	575	520	650
Sump Volume	(gal)	385	385	385	385
Load Capacity	(lbs)	5000	5000	5000	10000
Storage Capacity	(350 gal. IBCs)	1	1	1	2
Price		**$860.00**	**$1055.00**	**$899.00**	**$1117.00**

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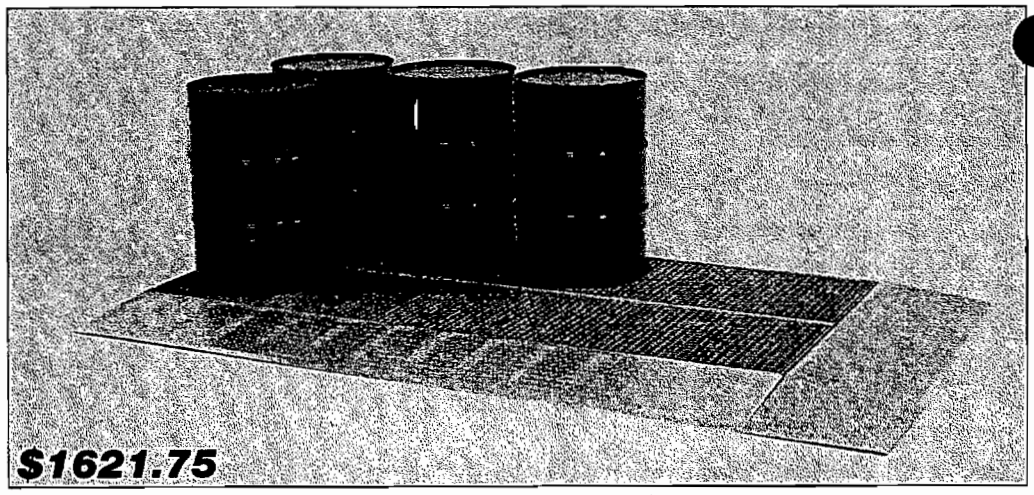
5" Modular Spill Decking for Workstations

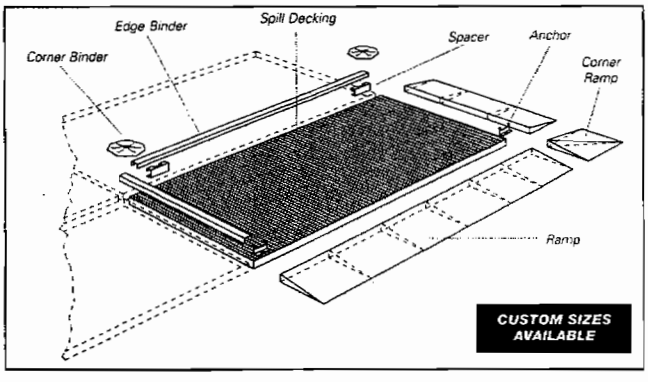
5" Deep, Modular Spill Decking provides economical compliance solutions for pre-existing areas.

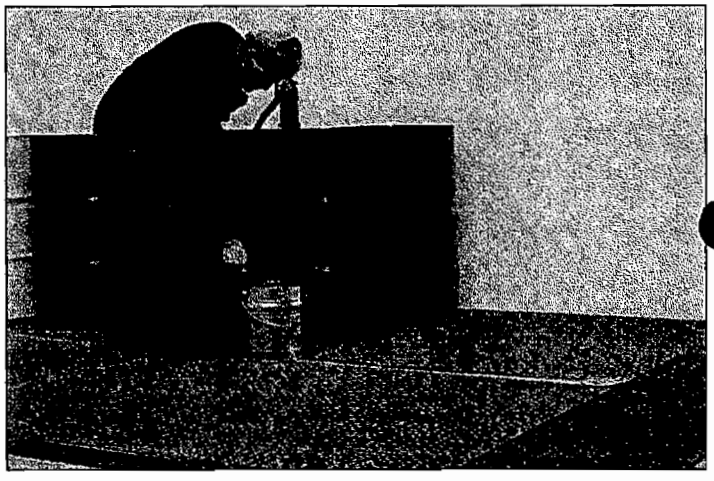
- *Simplifies general housekeeping in storage and dispensing areas*
- *Sump volumes are compliant with EPA and UFC spill containment regulations for 55-gallon drums*
- *Constructed of heavy gauge, corrosion resistant galvanized steel*
- *Welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Relocatable and expandable*
- *Binder & Anchor Accessories secure systems in place*

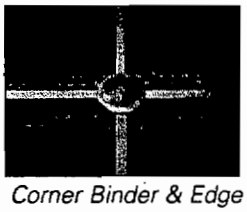


49" x 73" Modular Spill Decking (K42-1155) with one 48" Ramp (K42-1915), one 72" Ramp (K42-1917) and one Corner Ramp (K42-1927), Order No. K42-1190

FOR CONSULTATION ON FORKLIFT AND TRUCK TRAFFIC, PLEASE CALL

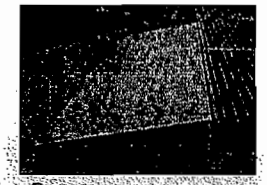






Corner Binder & Edge Binder

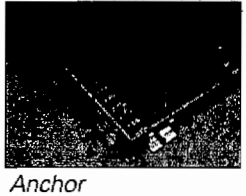
Outside Dimensions	(in)	49 x 61	61 x 61	49 x 73	61 x 73
Overall Height	(in)	5	5	5	5
Shipping Weight	(lbs)	290	350	336	420
Sump Volume	(gal)	66	77	74	93
Load Capacity	(lbs)	350 psf	350 psf	350 psf	350 psf
Price		**$599.00**	**$747.00**	**$719.00**	**$896.00**



Ramp

EDGE BINDER				
Outside Dimensions L x D	(in)	48 x 1	60 x 1	72 x 1
Price		**$15.95**	**$19.95**	**$23.95**

RAMPS				
Outside Dimensions L x D	(in)	48 x 25	60 x 25	72 x 25
Overall Height	(in)	5	5	5
Shipping Weight	(lbs)	61	95	205
Price		**$297.00**	**$378.00**	**$449.00**



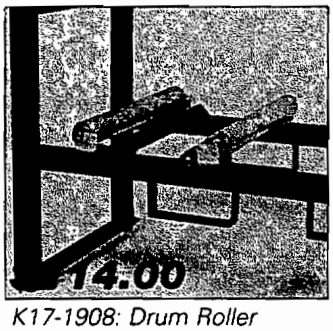
Anchor

ACCESSORIES		ANCHOR K42-1925	SPACER K42-1926	CORNER BINDER K42-1927	CORNER RAMP K42-1928
Outside Dimensions	(in)	1 x 5	1 x 5	5 x 5	25 x 25
Price		**$17.65**	**$16.45**	**$55.65**	**$156.75**

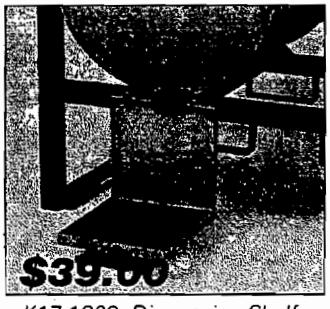
TRANSPORT RACKS WITH SPILL CONTAINMENT PALLETS

Build your own HazMat System!

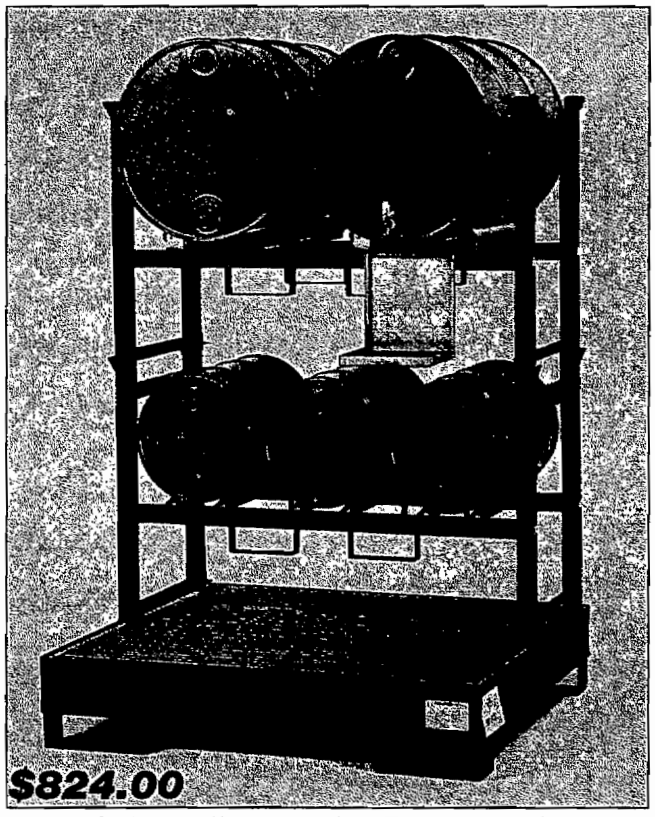
- *Sump of heavy gauge steel for extended life*
- *Sump volumes meet EPA & UFC requirements*
- *Sump welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Fully welded frame construction*
- *Complete with forklift pockets and stackable 2-high*
- *Nestable for economical shipping*



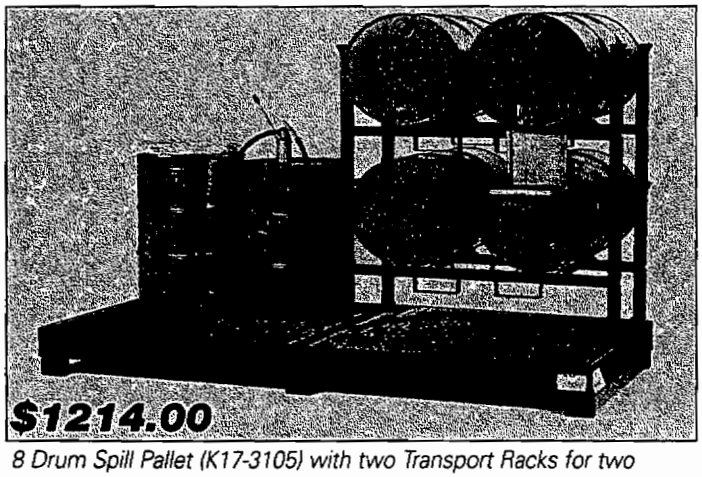
K17-1908: Drum Roller Assembly eases positioning of 55-gallon drum and allows drain to be rotated to the top to prevent dripping or leaks.



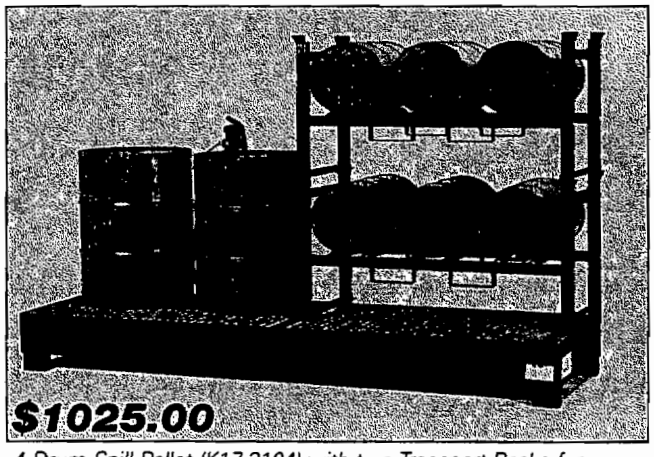
K17-1909: Dispensing Shelf is removable and can be used with any P&D 55-gallon drum dispensing system.



4 Drum Spill Pallet (K17-3103) with a Transport Rack for three 16-gallon drums (K17-3906) and a Transport Rack for two 55-gallon drums (K17-3905), (Dispensing Shelf not included.) Order No. K17-3110



8 Drum Spill Pallet (K17-3105) with two Transport Racks for two 55-gallon drums (K17-3905), (Dispensing Shelf not included.) Order No. K17-3113



4 Drum Spill Pallet (K17-3104) with two Transport Racks for three 16-gallon drums (K17-3906), Order No. K17-3112

		Appropriate Combinations		Appropriate Combinations				
Dimensions L x D	(in)	54 x 34	33 x 24	54 x 50	107 x 34	107 x 50	53 x 24	53 x 24
Overall Height	(in)	14	32	10	10	10	32	32
Sump Volume	(gal)	66		66	66	110		
Storage Capacity		2 x 55 gal. drums	1 x 55 gal. drums	4 x 55 gal. drums	4 x 55 gal. drums	8 x 55 gal. drums	2 x 55 gal. drums	3 x 16 gal. drums
Stacking Capacity			2-high				2-high	2-high
Price		**$301.00**	**$199.00**	**$369.00**	**$553.00**	**$776.00**	**$219.00**	**$236.00**

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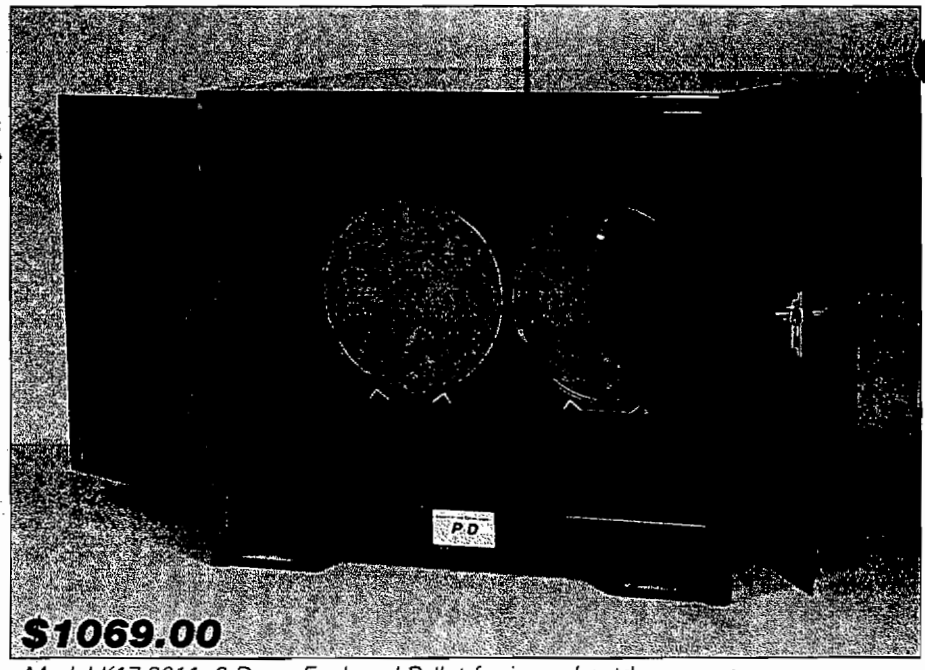
HORIZONTAL SPILL CONTAINMENT PALLETS

Safely dispense and store in- and outdoors with Horizontal Spill Containment Pallets

- *Sump volumes exceed EPA requirements*
- *Durable steel construction for extended life*
- *Fully welded, tubular frame construction*
- *Enclosed models complete with hinged, lockable doors*
- *Sump welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Coated with a durable, corrosive and weather resistant finish*
- *Greater sump volumes available upon request*

WARNING:
When dispensing Flammable & Combustible Materials, Regulations require grounding!
GROUNDING CABLE OPTIONAL



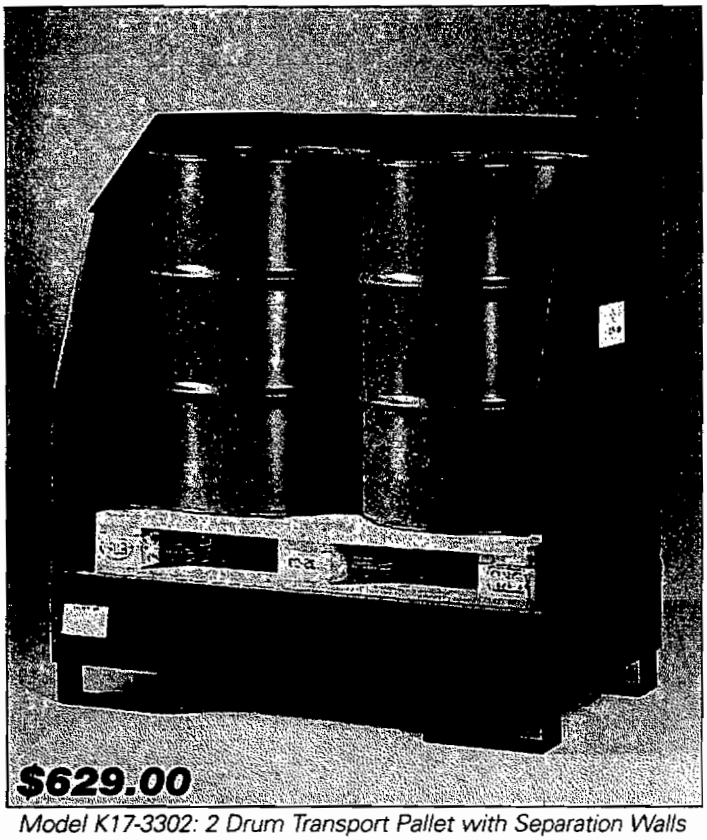
Model K17-3011: 2 Drum Enclosed Pallet for in- and outdoor usage

Model K17-3003: 4 Drum Horizontal Pallet for indoors

Model K17-3001: 1 Drum Horizontal Pallet for indoors

		OPEN MODELS			ENCLOSED MODELS		
Outside Dimensions L x D	(in)	32 x 52	61 x 52	61 x 52	32 x 52	61 x 52	61 x 52
Overall Height	(in)	18	18	48	48	48	78
Inside Height	(in)	–	–	–	28	28	2 x 28
Shipping Weight	(lbs)	276	320	441	474	596	728
Sump Volume	(gal)	66	66	66	66	66	66
Load Capacity	(lbs)	600	1200	2400	600	1200	2400
Storage Capacity	(55 gal. drums)	1	2	4	1	2	4
Price		**$348.00**	**$459.00**	**$592.00**	**$1017.00**	**$1069.00**	**$1437.00**

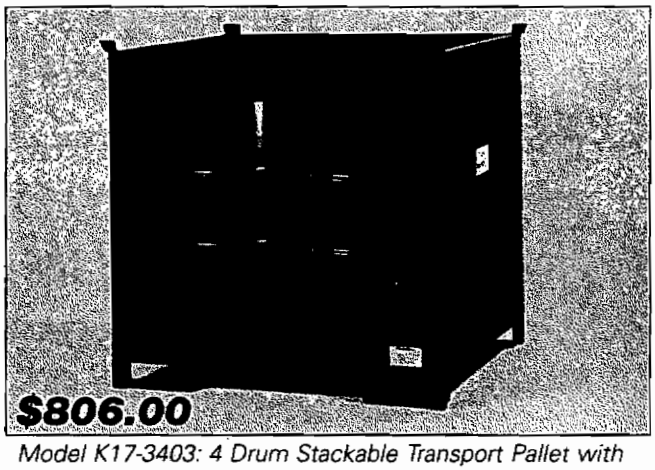
TRANSPORT PALLETS



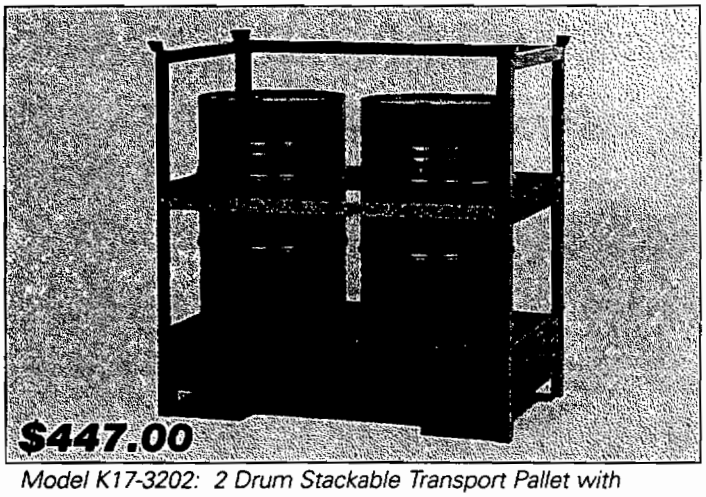
Model K17-3302: 2 Drum Transport Pallet with Separation Walls (Model is non-stackable)

Three styles of Transport Pallets available to move drums safely and protect drums from accidental damage.

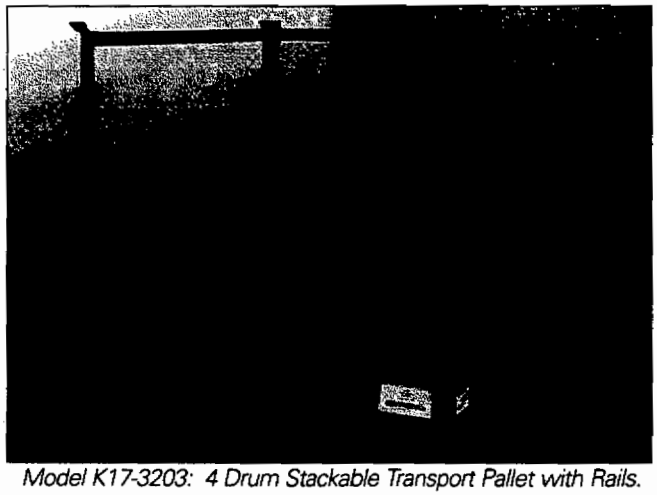
- *Solidly welded steel construction for extended life*
- *Sump welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Sump volumes exceed EPA & UFC requirements*
- *Coated with a durable, corrosion resistant finish*
- *Easily removable, galvanized steel grating*
- *Four-way forkliftable*
- *Security Bars available*



Model K17-3403: 4 Drum Stackable Transport Pallet with Separation Walls. Model stackable 2-high.



Model K17-3202: 2 Drum Stackable Transport Pallet with Rails and Security Bar. (Security Bar not included in price.) Model stackable 2-high.



Model K17-3203: 4 Drum Stackable Transport Pallet with Rails. Model stackable 2-high.

Style			Stackable 2-High with Rails	Stackable 2-High with Rails	Seperation Walls	Seperation Walls	Stackable 2-High with Seperation Walls	Stackable 2-High with Seperation Walls
Outside Dimensions	L x D	(in)	54 x 34	54 x 50	54 x 34	54 x 50	54 x 34	54 x 50
Overall Height		(in)	55	53	55	53	55	53
Inside Height		(in)	42	42	42	42	42	42
Shipping Weight		(lbs)	370	385	385	499	415	501
Sump Volume		(gal)	66	66	66	66	66	66
Load Capacity		(lbs)	1200	2400	1200	2400	1200	2400
Storage Capacity		(55 gal. drums)	2	4	2	4	2	4
Price			**$447.00**	**$549.00**	**$629.00**	**$768.00**	**$668.00**	**$806.00**

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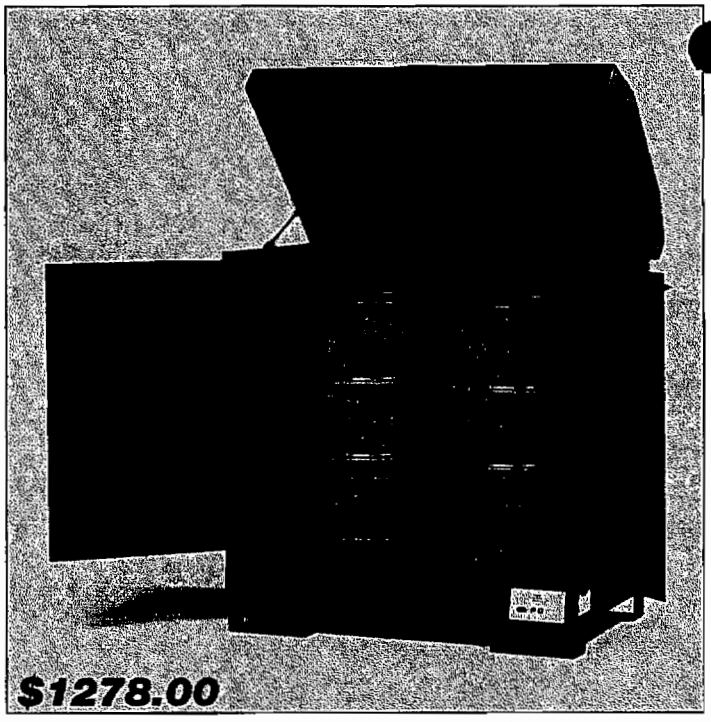
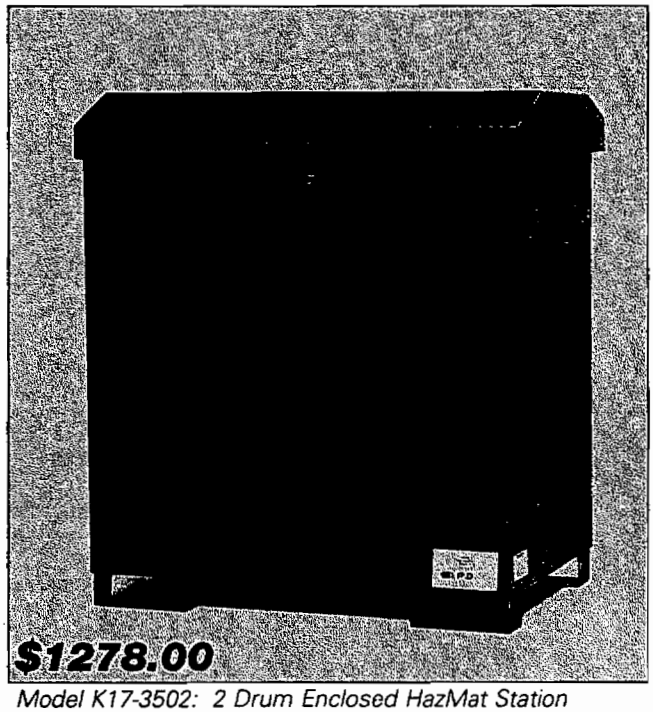
ENCLOSED HAZMAT STATIONS

Enclosed HazMat Stations are complete with Lockable, Hinged Lid & Doors for storing hazardous materials securely in- or outdoors.

- *For access to tops of drums, lid lifts easily and is supported by heavy duty gas cylinders*
- *Solidly welded steel construction for extended life*
- *Sump welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Sump volumes exceed EPA & UFC requirements*
- *Passive ventilation is standard*
- *Coated with a durable, corrosion and weather resistant finish*
- *Easily removable, galvanized steel grating*
- *Four-way forkliftable*
- *These outdoor models can be Fire Rated for Flammable and Combustible storage - See Page 36*
- *Use in combination with P&D's Horizontal Dispensing Racks - See Page 5*

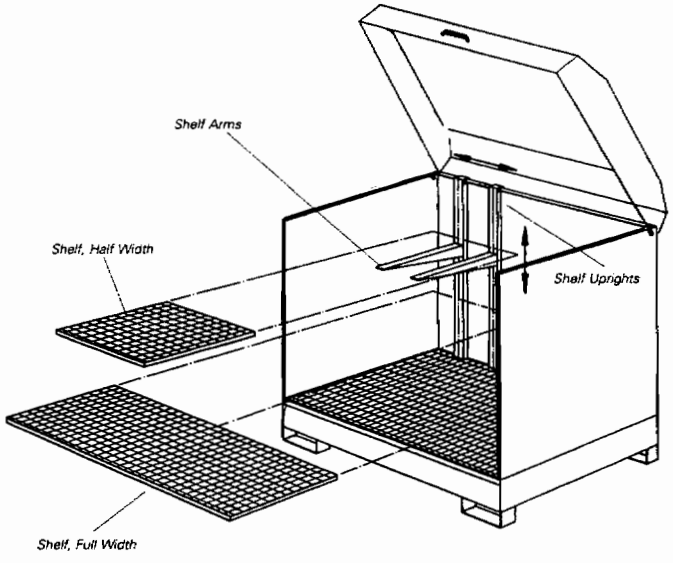


Model K17-3502: 2 Drum Enclosed HazMat Station



Model K17-3502: 2 Drum Enclosed HazMat Station

HazMat Shelving



For more details on HazMat Station Shelving, see Page15.

UFC - 8003.1.3.4 Containment Pallets

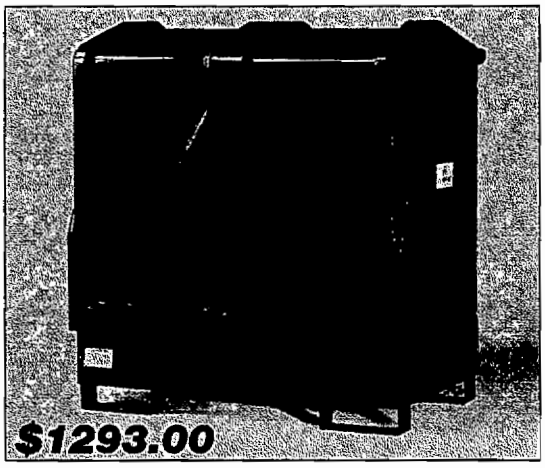
1. *A liquid-tight sump accessible for visual inspection shall be provided,*
2. *The sump shall be designed to contain not less than 66 gallons (249.8 L),*
3. *Exposed surfaces shall be compatible with material stored, and*
4. *Containment pallets shall be protected to prevent collection of rainwater within the sump.*

Outside Dimensions L x D	(in)	55 x 36	55 x 52
Overall Height	(in)	62	59
Inside Height	(in)	42	42
Shipping Weight	(lbs)	475	635
Sump Volume	(gal)	66	66
Load Capacity	(lbs)	1200	2400
Storage Capacity	(55 gal. drums)	2	4
Price		**$1278.00**	**$1629.00**

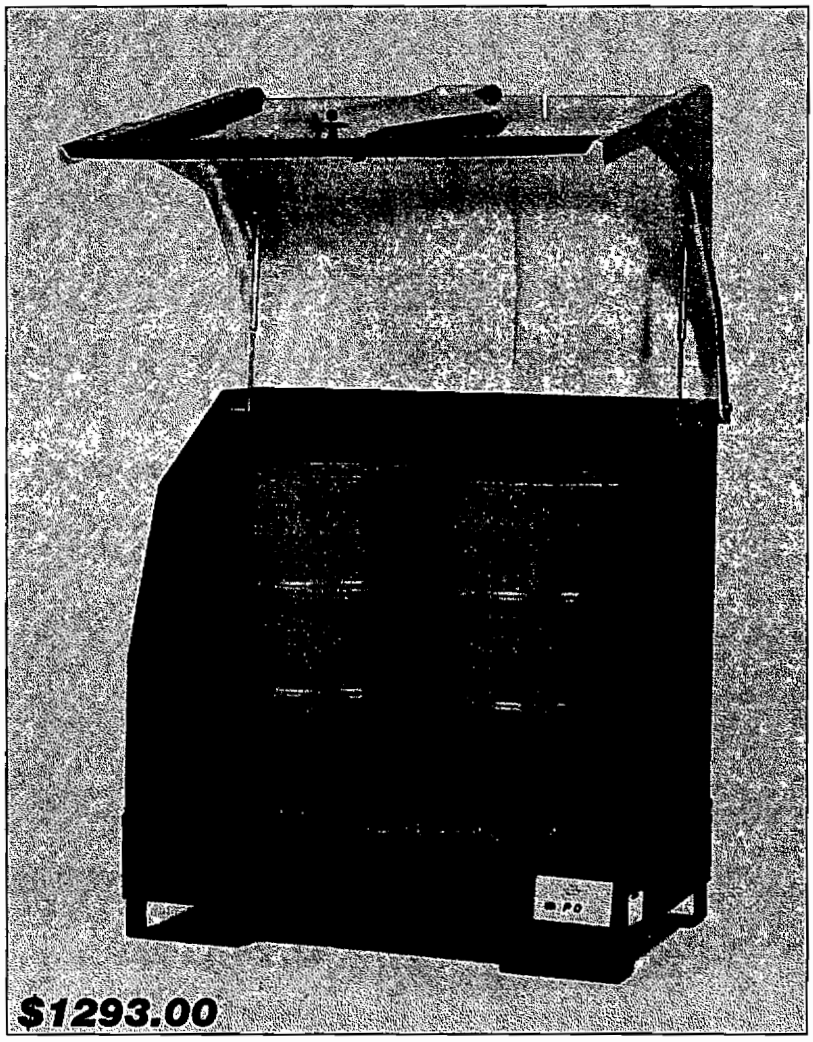
ENCLOSED HAZMAT STATION WITH FIBERGLASS LID

The HazMat Station keeps you in compliance with Federal, State and Local authorities by safely storing hazardous materials over a spill containment sump. The lockable, fiberglass lid secures drums and keeps out precipitation.

- *The corrosion resistant fiberglass lid offers years of protection*
- *Sump and sides constructed of steel and coated with a corrosion and weather resistant finish*
- *Sump volumes exceed EPA and UFC requirements*
- *Passive ventilation is standard*
- *Four-way forkliftable*
- *Use in combination with HazMat Shelving for additional storage options*
- *Not recommended for storing Class 1 Flammables*



Model K17-3706: 2 Drum HazMat Station



Model K17-3706: 2 Drum HazMat Station

HazMat Station K17-3706 with HazMat Shelving, Order No. K17-3715

EPA - 40 CFR 264.175

(1) A base must underly the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, or precipitation until the collected material is detected and removed.

Lid Style		Fiberglass	Fiberglass	Steel	Steel
Outside Dimensions L x D	(in)	54 x 36	55 x 53	54 x 36	55 x 53
Overall Height	(in)	60	60	60	60
Inside Height	(in)	42	42	42	42
Shipping Weight	(lbs)	452	714	461	732
Sump Volume	(gal)	66	66	66	66
Load Capacity	(lbs)	1200	2400	1200	2400
Storage Capacity	(55 gal. drums)	2	4	2	4
Price		**$1293.00**	**$1645.00**	**$1339.00**	**$1691.00**

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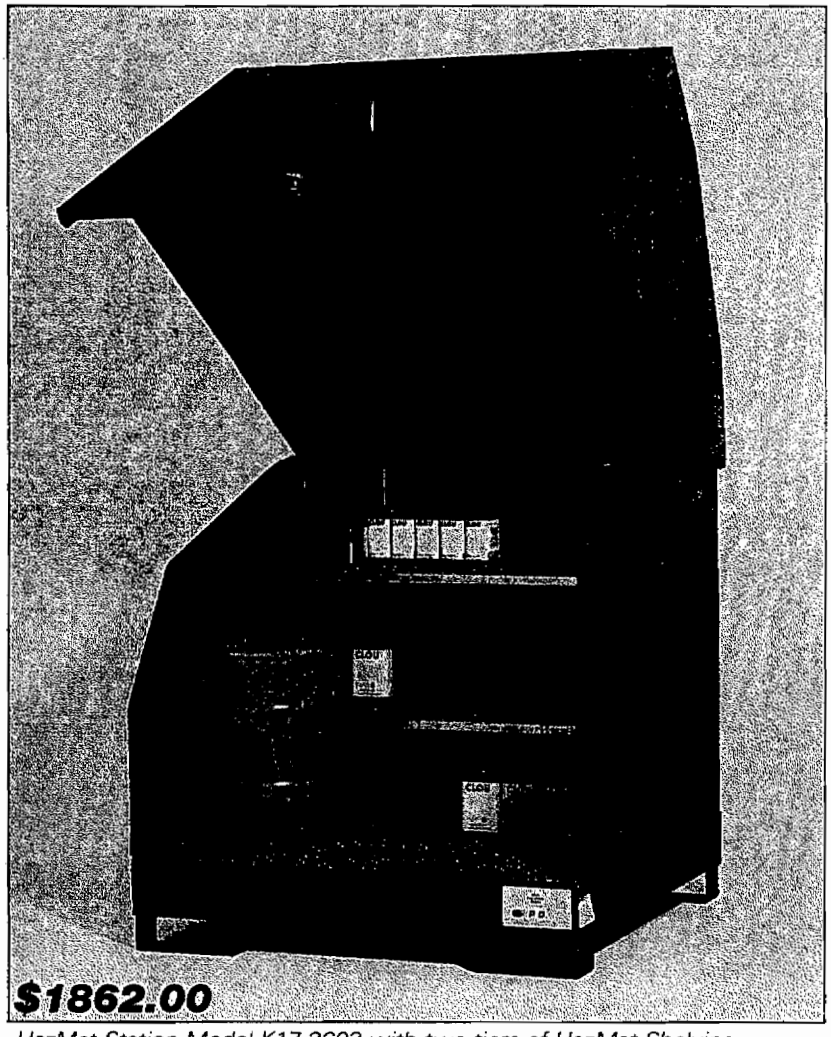
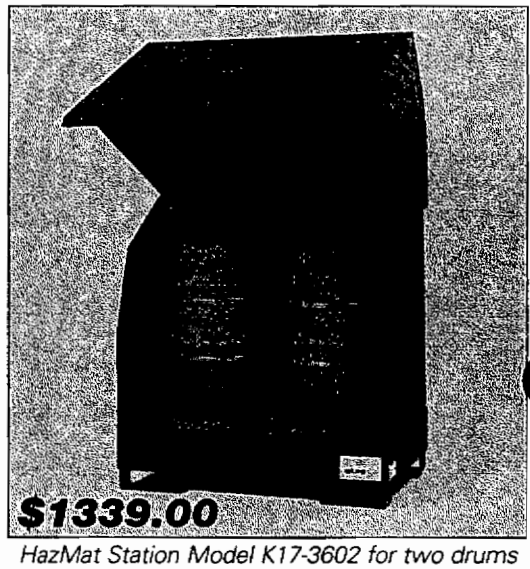
ENCLOSED HAZMAT STATION WITH STEEL LID



HazMat Station Model K17-3603 with two tiers of HazMat Shelving, Order No. K17-3732

The HazMat Station's hinged, steel lid design offers full access to all drums. Supported by heavy duty gas cylinders, the steel lid opens quickly and effortlessly.

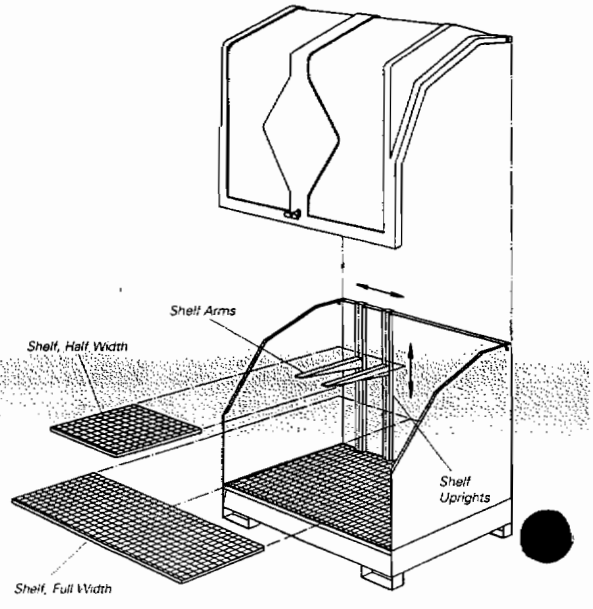
- *The lockable lid keeps out precipitation*
- *All steel construction coated with a corrosion and weather resistant finish*
- *Easily removable, galvanized steel grating*
- *Sump volumes exceed EPA and UFC requirements*
- *Passive ventilation is standard*
- *Four-way forkliftable*
- *Use in combination with P&D's Horizontal Dispensing Racks or HazMat Shelving for additional storage options*



HazMat Station Model K17-3602 for two drums

HazMat Station Model K17-3603 with Horizontal Dispensing Rack Model K17-1902, Order No. K17-3733

HazMat Shelving		
K17-3701	Half Width Shelf Package • 1 Pair Shelf Uprights • 1 Pair Shelf Arms • Shelf, Half Width- 23"L x 18½"D	$94.00
K17-3702	Half Width Shelf Adder • 1 Pair Shelf Arms • Shelf, Half Width- 23"L x 18½"D	$55.00
K17-3711	Full Width Shelf Package • 1 Pair Shelf Uprights • 1 Pair Shelf Arms • Shelf, Full Width- 46"L x 18½"D	$105.00
K17-3712	Full Width Shelf Adder • 1 Pair Shelf Arms • Shelf, Full Width- 46"L x 18½"D	$66.00



Store flammables and combustibles indoors in accordance with NFPA 30 and 29 CFR 1910.106 (OSHA) requirements.

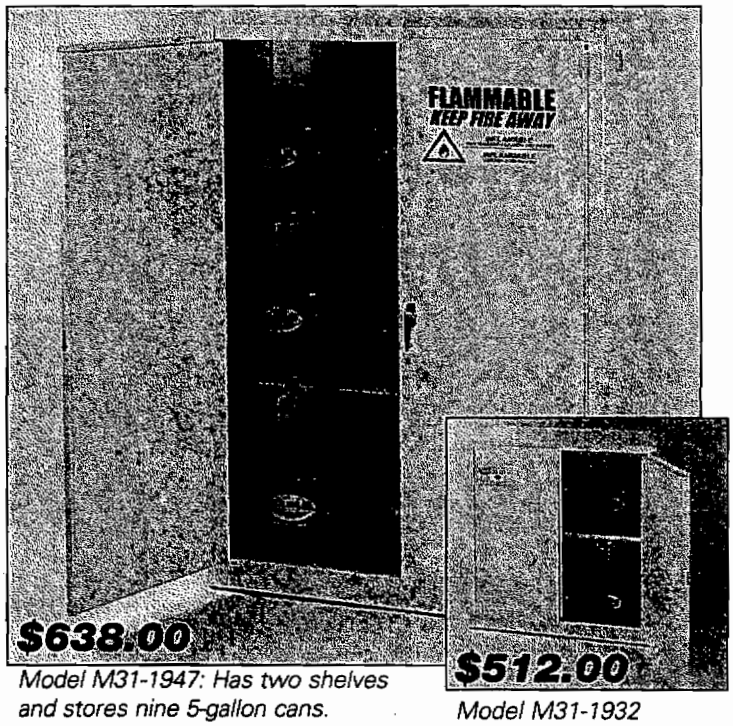
Double-Walled, Drum Storage Cabinets

- *Double-walled construction with 1½" air space using 18 gauge steel*
- *2" raised, leakproof sill*
- *Coated with a yellow, high-gloss finish*
- *Doors secured by 3-point key lock*
- *Vents, with 2" threaded fitting, include fire baffle and cap*
- *Labeled in Red Lettering:*
  "Flammable - Keep Fire Away"
  "Hazardous Waste"
- *Complete with rollers (inside bottom).*
- *Complete with one half-width shelf for smaller containers*
- *Models M31-1926 and M31-2610 are FM Approved*

Model M31-2610 available with Self-closing Sliding Door. See details below.

Model M31-1926

Model M31-1955: Stores two 55-gallon drums on rollers and features a half-width shelf for storing smaller containers.



Model M31-1947: Has two shelves and stores nine 5-gallon cans.

Model M31-1932

Double-Walled, Storage Cabinets for Safety Cans

- *Double-walled construction with 1½" air space using 18 gauge steel*
- *2" raised, leakproof sill*
- *Adjustable shelving*
- *Coated with a yellow, high-gloss finish*
- *2 Door Styles available:*
- *Doors secured by 3-point key lock*
- *Vents, with 2" threaded fitting, include fire baffle and cap*
- *Labeled in Red Lettering:*
  "Flammable - Keep Fire Away"
- *Complete with Shelving*
  Models M31-1932 & M31-3010 have 1 Shelf
  Models M31-1947 & M31-4510 have 2 Shelves

Most Models are FM Approved

Cabinet Type	Safety Can	Safety Can	Safety Can	Safety Can	Vertical Drum Storage	Vertical Drum Storage	Vertical Drum Storage
Door Style	2 Doors, Manual Close	Self Closing, Sliding	2 Doors, Manual Close	Self Closing, Sliding	2 Doors, Manual Close	Self Closing, Sliding	2 Doors, Manual Close
Outside Dimensions	43"L x 18"D	43"L x 18"D	43"L x 18"D	43"L x 18"D	31¼"L x 31¼"D	31¼"L x 31¼"D	58"L x 31½"D
Overall Height	44"	44"	65"	65"	65"	65"	65"
Shipping Weight	247 lbs.	257 lbs.	342 lbs.	353 lbs.	350 lbs.	360 lbs.	575 lbs.
Storage Capacity	30 gallons	30 gallons	45 gallons	45 gallons	One 55-gallon drum	One 55-gallon drum	Two 55-gallon drums
Approvals	FM	FM	FM	FM	FM	FM	–
Price	**$512.00**	**$664.00**	**$638.00**	**$828.00**	**$808.00**	**$875.00**	**$1477.00**

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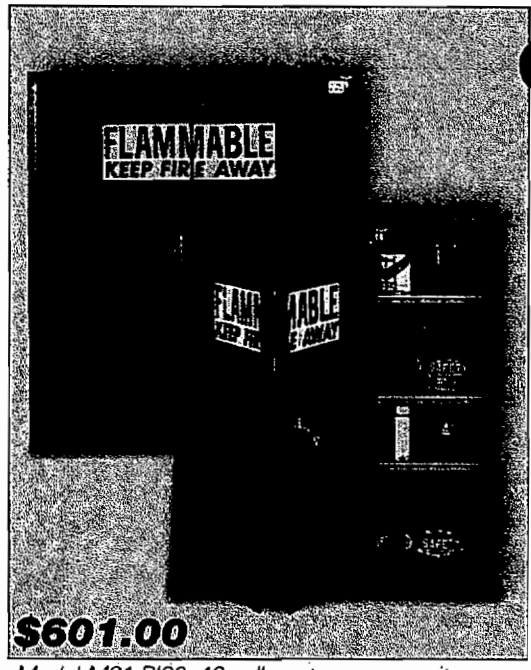
Paint/Ink Storage Cabinets

Store paints and ink cans in accordance with NFPA 30 and 29 CFR 1910.106 (OSHA) Requirements

- *Double-walled construction with 1½" air space using 18 gauge steel*
- *Coated with a red, high gloss finish*
- *Doors secured by 3-point key lock*
- *2" raised, leakproof door sill*
- *Adjustable shelving*
- *Sliding door models are self-closing with fusible link*
- *Vents, with 2" threaded fitting, include fire baffle and cap*
- *Labeled in Red Lettering: "Flammable - Keep Fire Away"*
- *All models FM Approved*

Door Style	1 Self-Closing, Sliding	2 Doors, Manual Close	1 Self-Closing, Sliding	2 Doors, Manual Close
Shelves	3	3	5	5
Dimensions	43"L x 18"D x 44"H	43"L x 18"D x 44"H	43"L x 18"D x 65"H	43"L x 18"D x 65"H
Shipping Weight	278 lbs.	272 lbs.	378 lbs.	380 lbs.
Storage Capacity	40 gallons	40 gallons	60 gallons	60 gallons
Approvals	FM	FM	FM	FM
Price	**$601.00**	**$551.00**	**$769.00**	**$698.00**



Model M31-PI30: 40-gallon storage capacity

Model M31-PE32: 30-gallon storage capacity

Pesticide Storage Cabinets

Perfect for grounds keeping and agricultural applications where pesticides are stored.

- *Double-walled construction with 1½" air space using 18 gauge steel*
- *Equipped with high density polyethylene trays for shelves and bottom*
- *3-point key lock*
- *2" raised, leakproof door sill*
- *Adjustable shelving*
- *Available in 12, 30 and 45 gallon capacities*
- *Labeled in White Lettering: "Flammable - Keep Fire Away"*

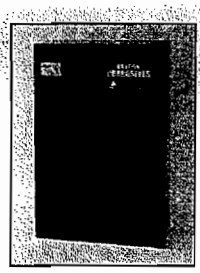
Door Style	1 Door, Manual Close	2 Doors, Manual Close	2 Doors, Manual Close
Shelves	1	1	2
Dimensions	23"L x 18"D x 35"H	43"L x 18"D x 44"H	43"L x 18"D x 65"H
Shipping Weight	133 lbs.	253 lbs.	351 lbs.
Storage Capacity	12 gallons	30 gallons	45 gallons
Approvals	–	FM	FM
Price	**$397.00**	**$532.00**	**$665.00**

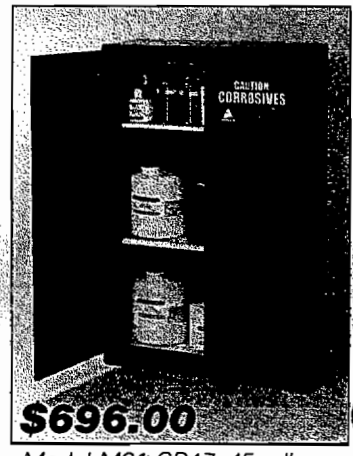
Acid And Corrosive Storage Cabinets

Store small containers up to 5-gallon capacity of acids & corrosive liquids.

- *Double-walled construction with 1½" air space using 18 gauge steel*
- *Equipped with high density polyethylene trays for shelves and bottom*
- *Adjustable shelving*
- *Labeled in White Lettering: "Caution - Corrosives"*
- *Coated with blue, epoxy powder finish*
- *All models FM Approved*

Door Style	1 Self-Closing, Sliding	2 Doors, Manual Close	1 Self-Closing, Sliding	2 Doors, Manual Close
Trays	1 Shelf/1 Bottom	1 Shelf/1 Bottom	2 Shelves/1 Bottom	2 Shelves/1 Bottom
Dimensions	43"L x 18"D x 44"H	43"L x 18"D x 44"H	43"L x 18"D x 65"H	43"L x 18"D x 65"H
Shipping Weight	259 lbs.	253 lbs.	349 lbs.	351 lbs.
Storage Capacity	30 gallons	30 gallons	45 gallons	45 gallons
Approvals	FM	FM	FM	FM
Price	**$624.00**	**$574.00**	**$771.00**	**$706.00**





Model M31-CR47: 45-gallon storage capacity

4 Drum Low Profile - Poly Safe Pallet

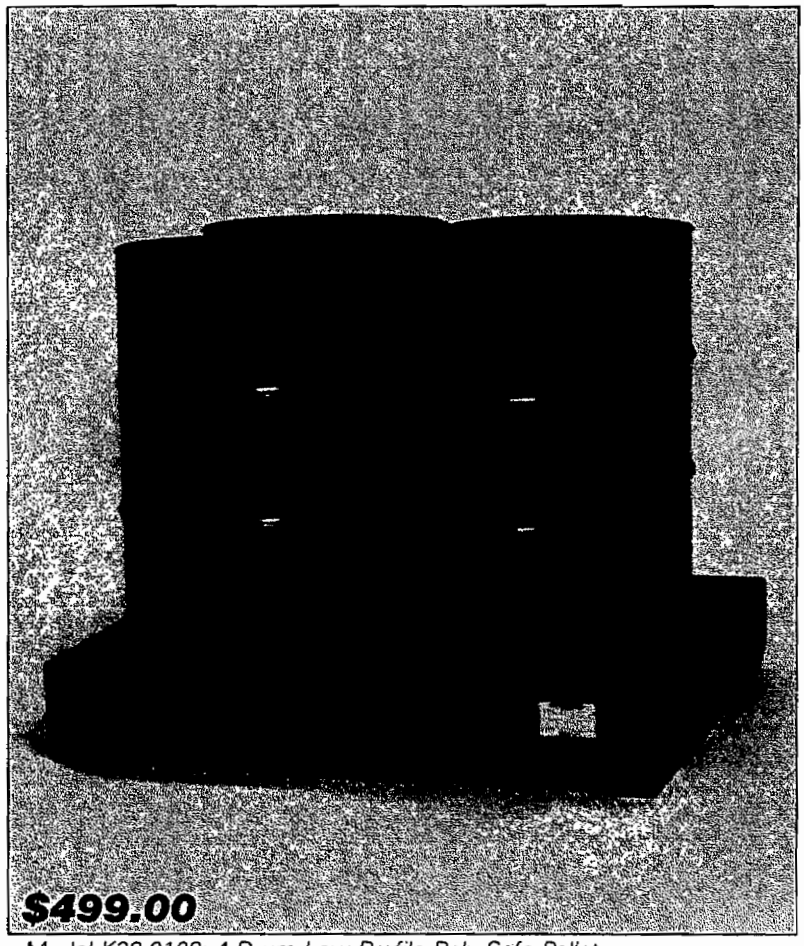
The rugged double-walled construction provides strength necessary for high specific gravity corrosives, while the low profile design allows for safer transport and access to the tops of all drums.

- *62-gallon sump volume exceeds EPA requirements*
- *Sturdy 100% polyethylene construction is UV stabilized*
- *Easily removable, fiberglass grating*
- *Use in combination with Poly Drum Cradles*
- *Low-Profile for easy placement of drums*
- *Forkliftable*

EPA - 40 CFR 264.176

(c) A storage container holding hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from other materials or protected from them by means of a dike, berm, wall or other device.

Outside Dimensions	L x D	(in)	61 x 54
Overall Height		(in)	9
Shipping Weight		(lbs)	192
Sump Volume		(gal)	62
Load Capacity		(lbs)	2400
Storage Capacity		(55 gal. drums)	4
Price			**$499.00**



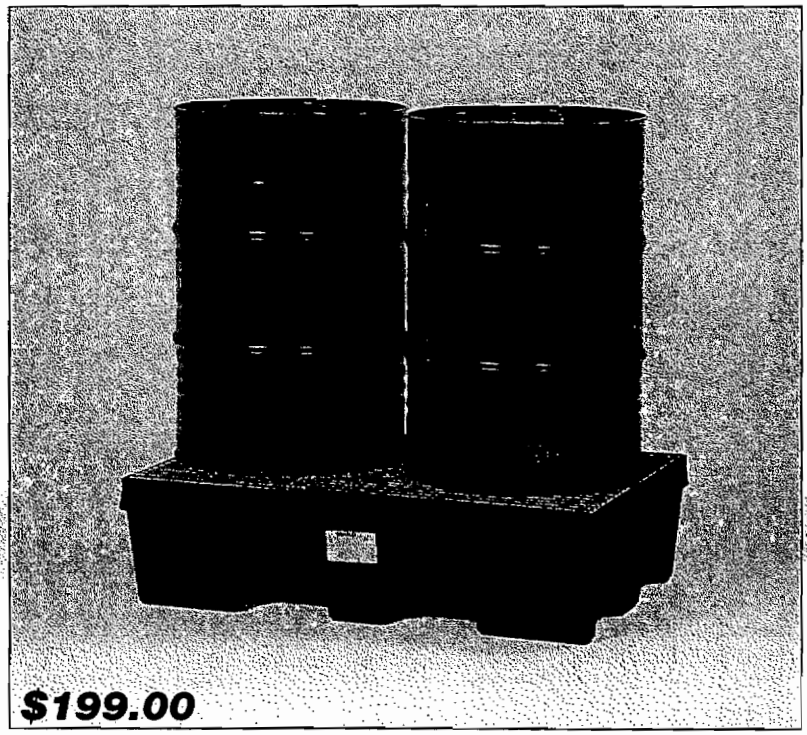
Model K22-0109: 4 Drum Low Profile-Poly Safe Pallet

2 Drum - Poly Safe Pallet

Manufactured of 100% Polyethylene, these pallets are designed for the storage of corrosive materials. Whether storing two 55-gallon drums or several batteries, the spill containment sump exceeds EPA requirements.

- *62-gallon sump volume*
- *Sturdy 100% polyethylene construction is UV stabilized*
- *Easily removable, galvanized steel grating*
- *Fiberglass grating also available*

Outside Dimensions	L x D	(in)	52 x 32
Overall Height		(in)	14
Shipping Weight		(lbs)	150
Sump Volume		(gal)	62
Load Capacity		(lbs)	1200
Storage Capacity		(55 gal. drums)	2
Price			**$199.00**



Model K22-0103: 2 Drum-Poly Safe Pallet

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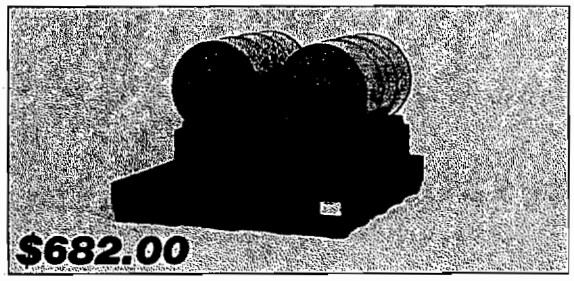
Poly Drum Cradles

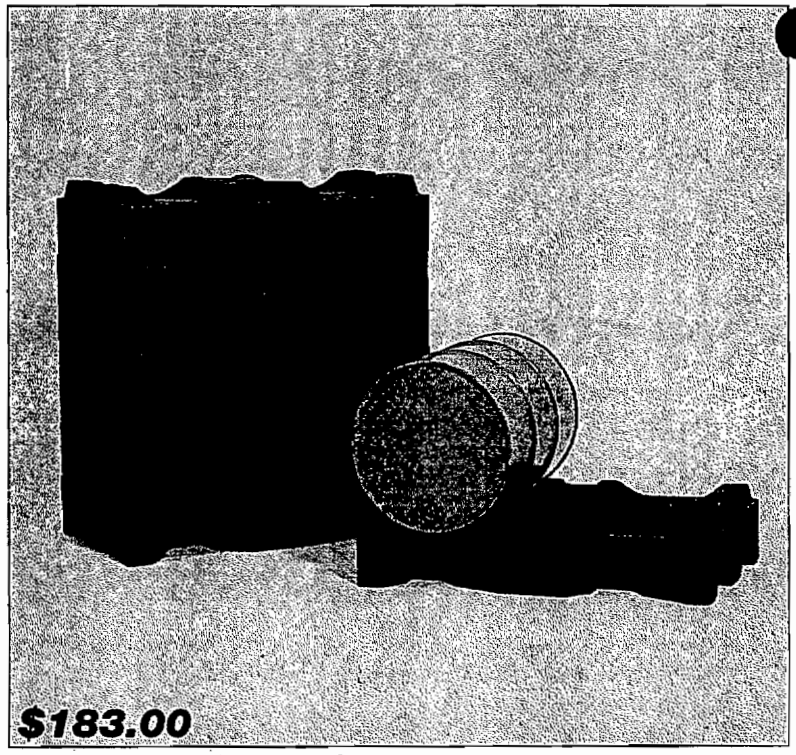
For storing or dispensing two 55-gallon drums. Use in combination with P&D Pallet Systems

- *Sturdy 100% polyethylene construction is UV stabilized*
- *Nestable for economical shipping*
- *Stackable 2-high*

Outside Dimensions	L x D	(in)	51 x 31
Overall Height		(in)	12
Shipping Weight		(lbs)	65
Load Capacity		(lbs)	1200
Storage Capacity		(55 gal. drums)	2
Price			**$183.00**



Poly Drum Cradle holds two drums on a Four Drum Low Profile - Poly Safe Pallet. Order No. K22-0207



Model K22-0904: Poly Drum Cradle

IBC Poly Safe Pallet

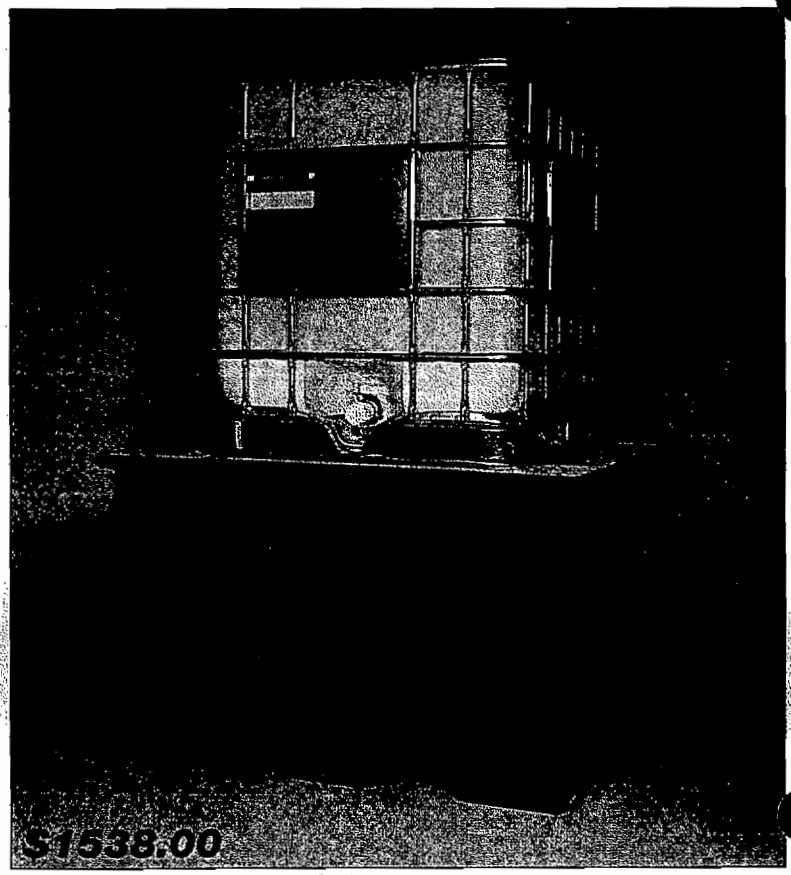
For Intermediate Bulk Containers (IBCs) storing corrosive material over a spill containment sump manufactured of 100% Polyethylene. Pallets accommodate 185 to 450 gallon IBCs, container sizes: 42" x 48" and 48" x 48".

- *465-gallon sump volume*
- *Sturdy 100% polyethylene construction is UV stabilized*
- *Easily removable, fiberglass grating*
- *Forkliftable when empty. Pallet is not to be used to transport IBCs*

UFC - 8003.1.3.4 - Containment Pallet

(3) Exposed surfaces shall be compatible with the material stored.

Outside Dimensions	L x D	(in)	60 x 60
Overall Height		(in)	38
Shipping Weight		(lbs)	350
Sump Volume		(gal)	465
Load Capacity		(lbs)	5000
Storage Capacity		(450 gal. IBCs)	1
Price			**$1538.00**



Model K22-0110: IBC Poly Safe Pallet

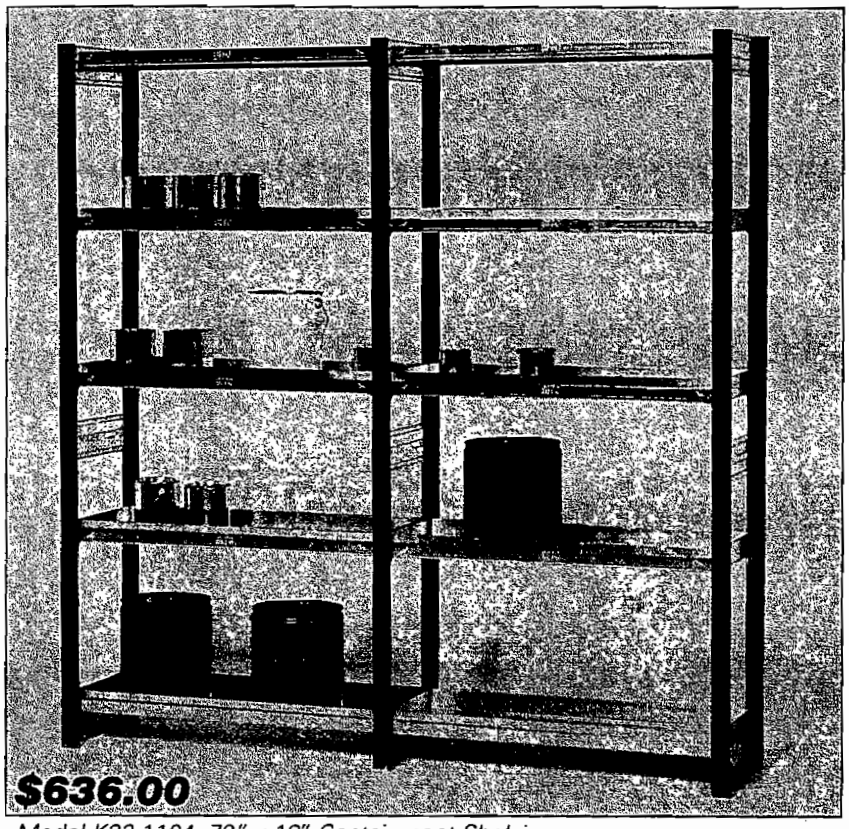
CONTAINMENT SHELVING

Containment Shelving is designed for storing small containers. Shelving is recessed for collecting drips and spills. These systems are perfect for any location where reactive or corrosive chemicals are stored: Lab, Storeroom, Factory, or Office.

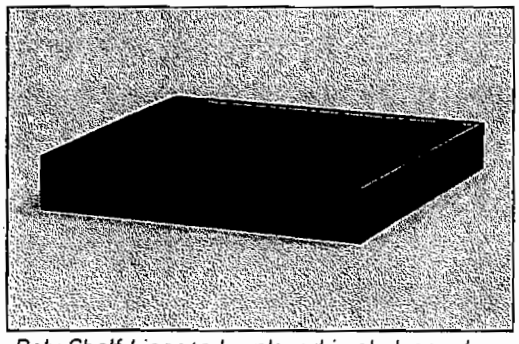
- *Shelving provides physical separation of materials*
- *Shelving made of durable galvanized steel*
- *Recess Depth - 2"*
- *Steel uprights are coated with a corrosion resistant coating*
- *Tiers are adjustable in 1.5" increments*
- *Top shelf is affixed and offers no containment*
- *Shipped economically in a "Knock-Down" form; units are light-weight and easy to assemble*

UFC - 7902.5.6.2 Shelf Storage

Displacement Protection. *Shelves shall be of sufficient depth and provided with a lip or guard to prevent individual containers from being easily displaced.*

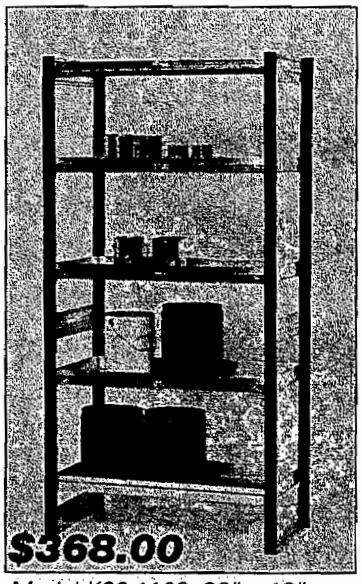


Model K32-1104: 72" x 18" Containment Shelving

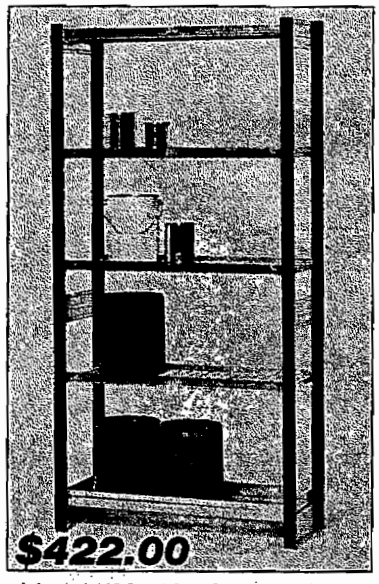


Poly Shelf Liner to be placed in shelves when storing acids and corrosives.

Model K32-1901: 36"L x 18"D $19.95
Model K32-1903: 36"L x 24"D $26.95



Model K32-1103: 36" x 18" Containment Shelving



Model K32-1105: 36" x 24" Containment Shelving

Overall Dimensions L x D	(in)	36 x 18	72 x 18	36 x 24	72 x 24
Overall Height	(in)	84	84	84	84
No. of Tiers		4	2 x 4	4	2 x 4
Load Capacity per Shelf	(lbs)	200	200	250	250
Shipping Weight	(lbs)	151	282	206	392
Price		**$368.00**	**$636.00**	**$422.00**	**$733.00**

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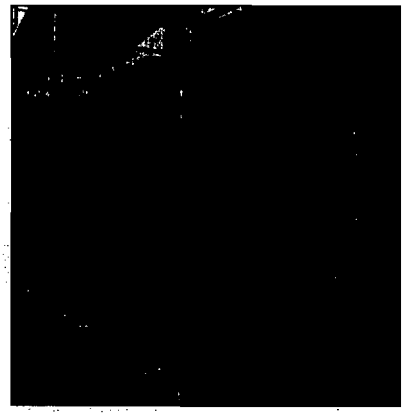
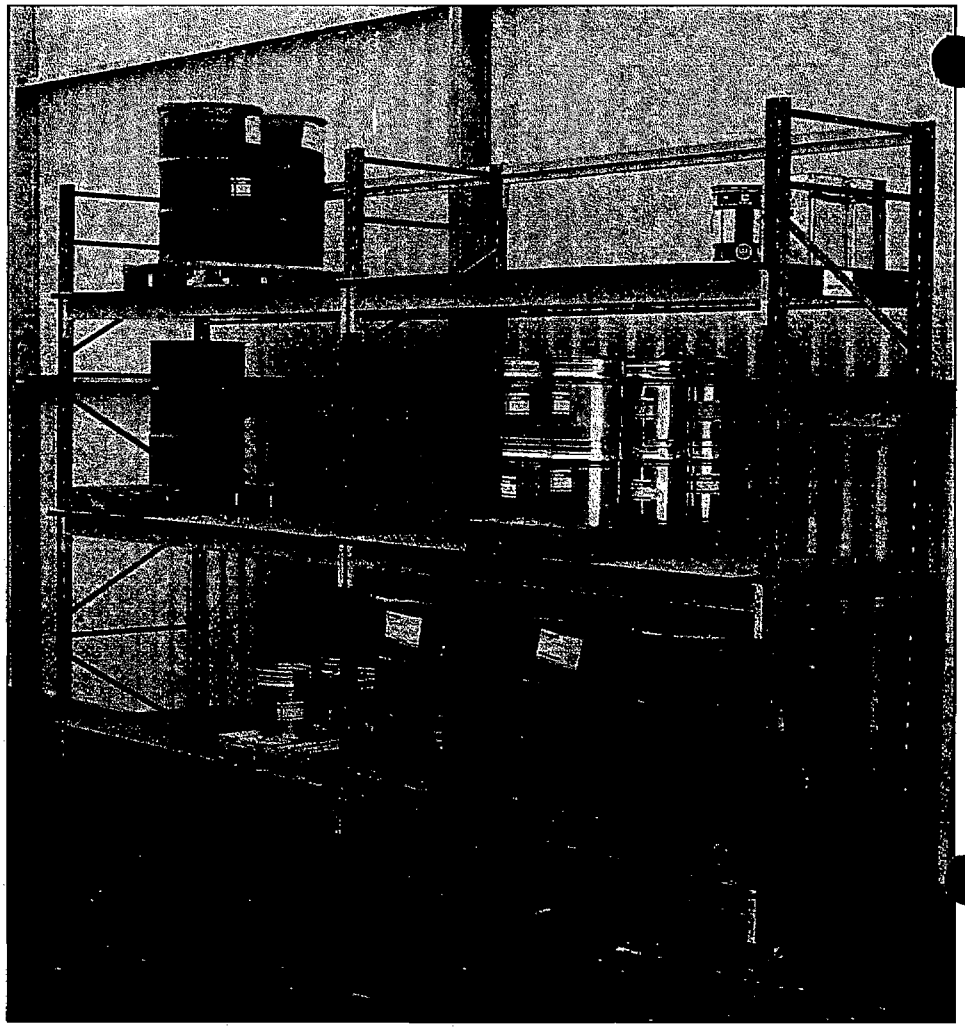
Sump Inserts For Pre-Existing Pallet Racks

Quickly and easily bring existing pallet rack storage into compliance by placing Sump Inserts between cross members. Pallet Rack Sump inserts consist of a spill containment sump and easily removable galvanized steel grating.





- *Made to fit exact pallet rack specifications; Sump Inserts provide economical retrofits*
- *Sump of heavy duty, corrosion resistant galvanized steel*
- *Sump welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Load Capacity - 250 psf*
- *Sump volumes meet EPA requirements*

UFC 8003.1.3.4 Containment Pallets. ...

2. The sump shall be designed to contain not less than 66 gallons(249.6 L.)

Please Call 1-800-216-7776 with the dimensions of your pallet rack.

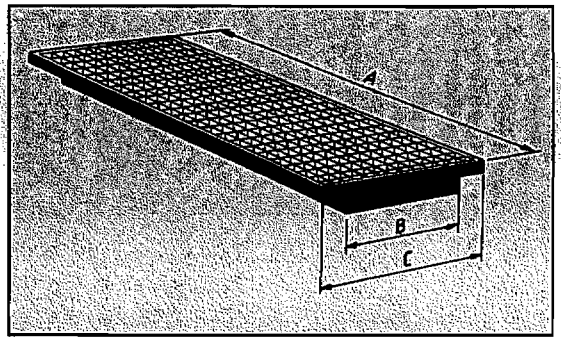
For Sump Insert Configurations:

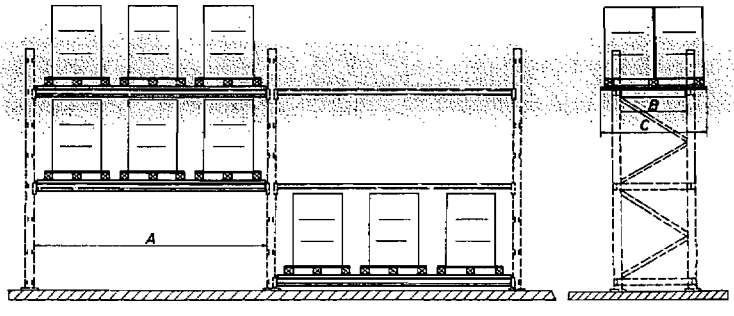
A = Interior Length of the Cross Members

B = Interior Width between the Cross Members

C = Depth of Pallets

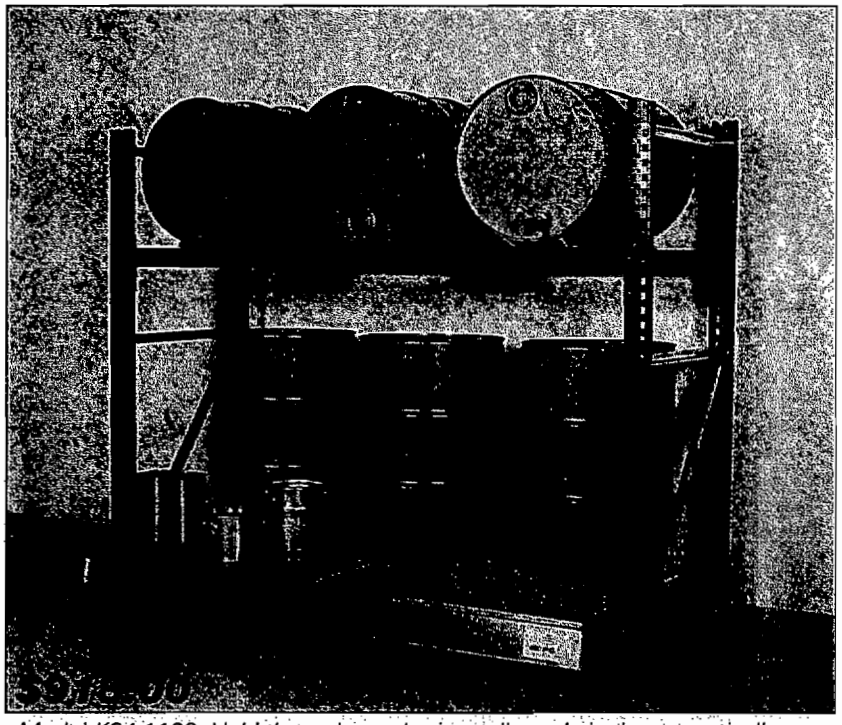
= Your Specified Pallet Rack Sump Insert



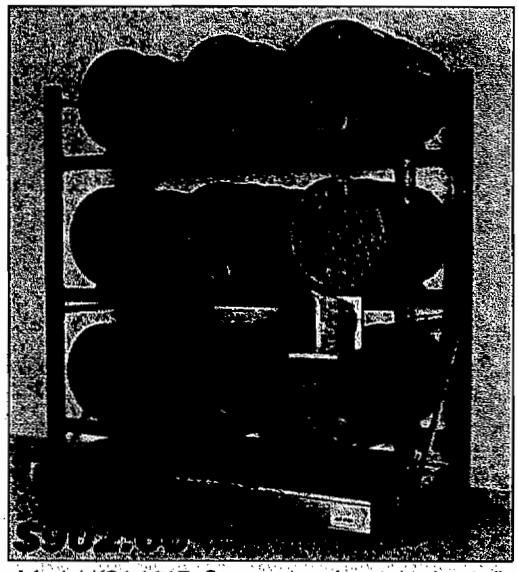


KNOCK-DOWN CONTAINMENT RACKS

When flexibility is important, these Knock-Down Containment Racks are the perfect storage solution. Store Hazardous Materials vertically, horizontally, or both! Any combination can be coordinated to fit individual needs; Rack Additions can be added as needs expand.

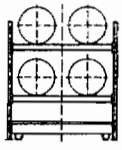
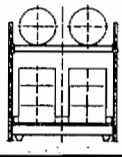
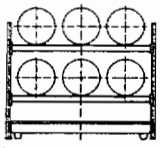
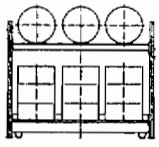


Model K34-1109: Hold three drums horizontally and six drums vertically on galvanized grating.

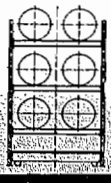
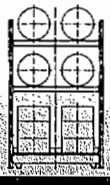
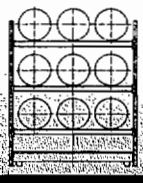
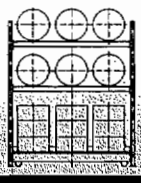


Model K34-1117: Stores nine drums horizontally (Dispensing shelf not included in price).

- *Multifunctional storage rack system*
- *Vertical uprights and cross members are coated with a corrosion resistant coating*
- *Cross members are adjustable in 2" increments*
- *Shipped economically in a "Knock-Down" form; units are easily assembled*
- *Rack Additions Available*

Frame Dimensions L x D x H (in)	54 x 39 x 96	54 x 39 x 96	96 x 39 x 96	96 x 39 x 96
Spill Containment Sump (in)	54 x 50	54 x 50	96 x 50	96 x 50
Sump Volume (gal)	66	66	124	124
Storage Capacity	4 x 55 gal. drums - horizontal	2 x 55 gal. drums - horizontal 4 x 55 gal. drums - vertical	6 x 55 gal. drums - horizontal	3 x 55 gal. drums - horizontal 6 x 55 gal. drums - vertical
Price	**$654.00**	**$688.00**	**$824.00**	**$918.00**

Frame Dimensions L x D x H (in)	54 x 39 x 96	54 x 39 x 96	96 x 39 x 96	96 x 39 x 96
Spill Containment Sump (in)	54 x 50	54 x 50	96 x 50	96 x 50
Sump Volume (gal)	66	66	124	124
Storage Capacity	6 x 55 gal. drums - horizontal	4 x 55 gal. drums - horizontal 4 x 55 gal. drums - vertical	9 x 55 gal. drums - horizontal	6 x 55 gal. drums - horizontal 6 x 55 gal. drums - vertical
Price	**$756.00**	**$790.00**	**$902.00**	**$1062.00**

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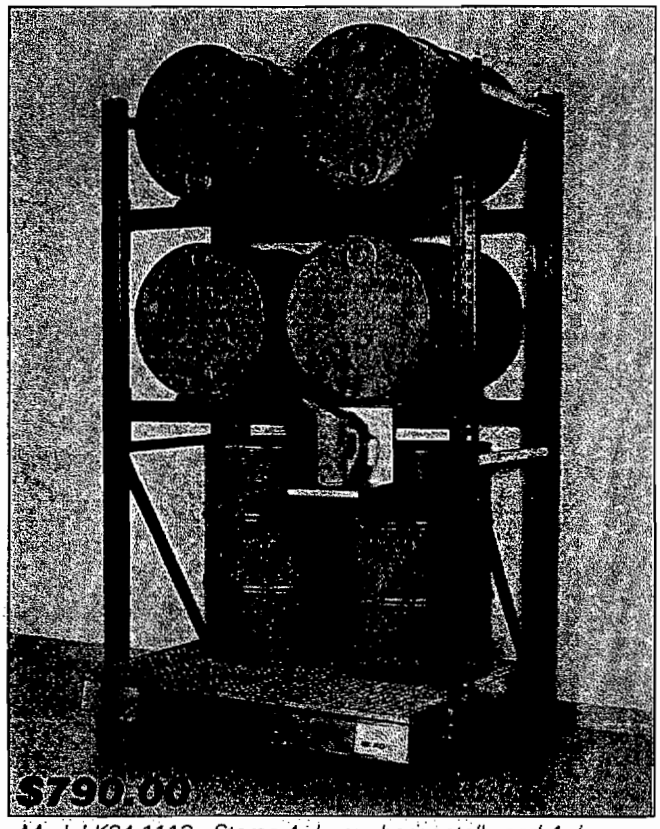
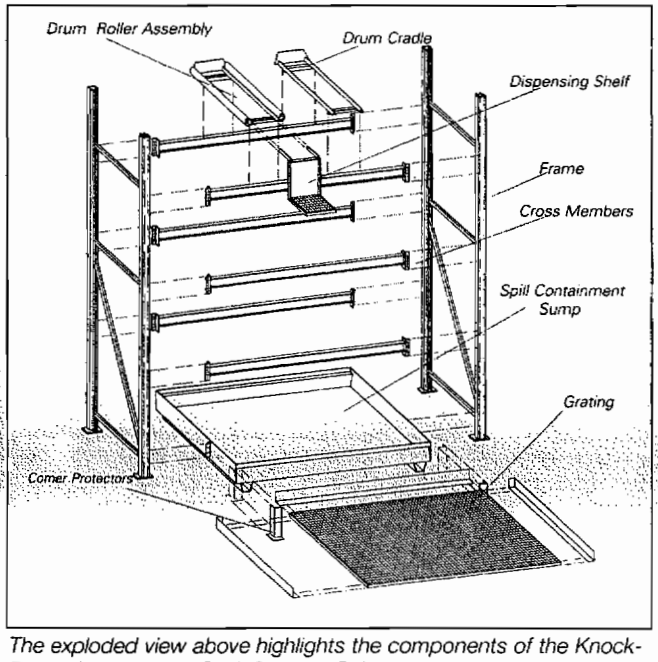
KNOCK-DOWN CONTAINMENT RACKS

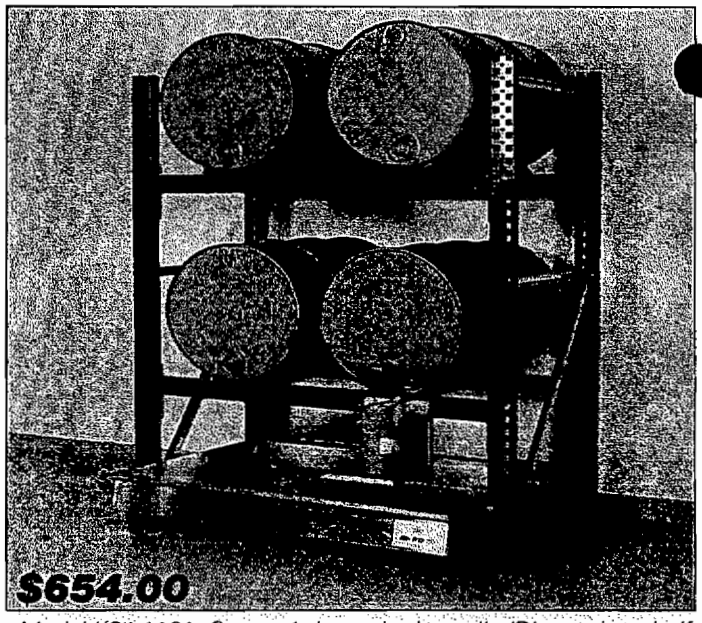


Model K34-1113 : Stores 4 drums horizontally and 4 drums vertically on galvanized grating (Dispensing shelf not included in price).

EPA - 40 CFR 264.175
(3) The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater.



The exploded view above highlights the components of the Knock-Down Containment Rack System. Select components to build a personalized system from the Individual Parts table.



Model K34-1101: Stores 4 drums horizontally (Dispensing shelf not included in price).

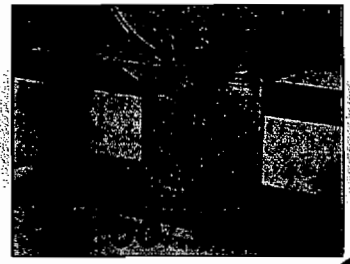
Knock-Down Containment Racks	
K34-3903	Frame, 96" x 39"
K34-3905	Cross Members, 54" long (1 Pair)
K34-3906	Cross Members, 96" long (1 Pair)
K34-3907	Spill Containment Sump, 54" x 50"
K34-3908	Spill Containment Sump, 96" x 50"
K34-3910	Galvanized Grating for Sump, 54" x 50"
K34-3911	Galvanized Grating for Sump, 96" x 50"
K34-3912	Drum Cradle for 16 & 55 gallon drums

- *Sump of heavy gauge, galvanized steel*
- *Galvanized steel grating*
- *Poly Sump Liners available for highly corrosive materials*
- *Sump volumes which exceed EPA & UFC requirements*

Available Accessories:

K17-1908: Drum Roller Assembly eases positioning of 55-gallon drum and allows drain to be rotated to the top to prevent dripping or leaks.

K34-3901: Corner Protectors

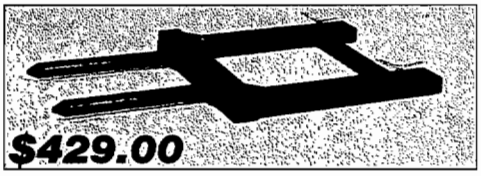


K17-1909: Dispensing Shelf is removable and can be used with any P&D 55 gal. drum dispensing system.

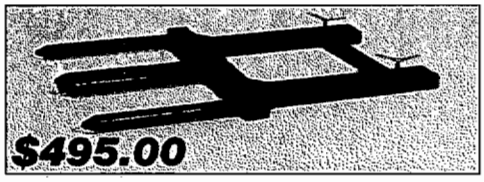
DRUM HANDLING EQUIPMENT

These fork mounted Drum Handling Systems have been designed to load, maneuver, and place 55-gallon steel drums!

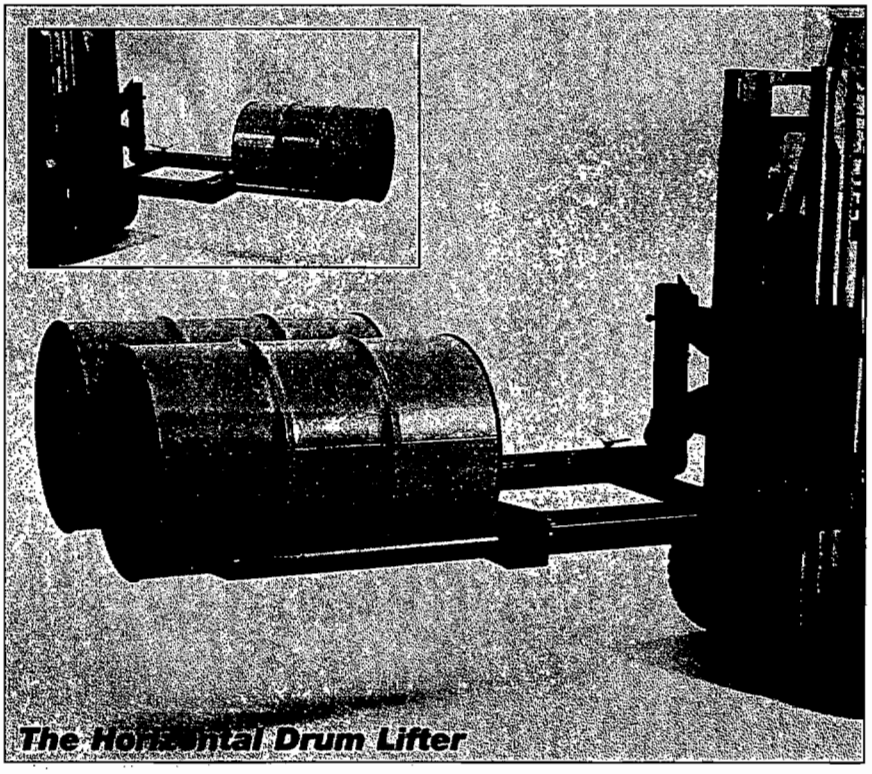
- ***The Horizontal Drum Lifter*** *is designed for horizontal loading and transport of 55-gallon drums*
- *Slips easily onto forks and is hand tightened into position by the wing bolts*
- *Fits most standard fork sizes*

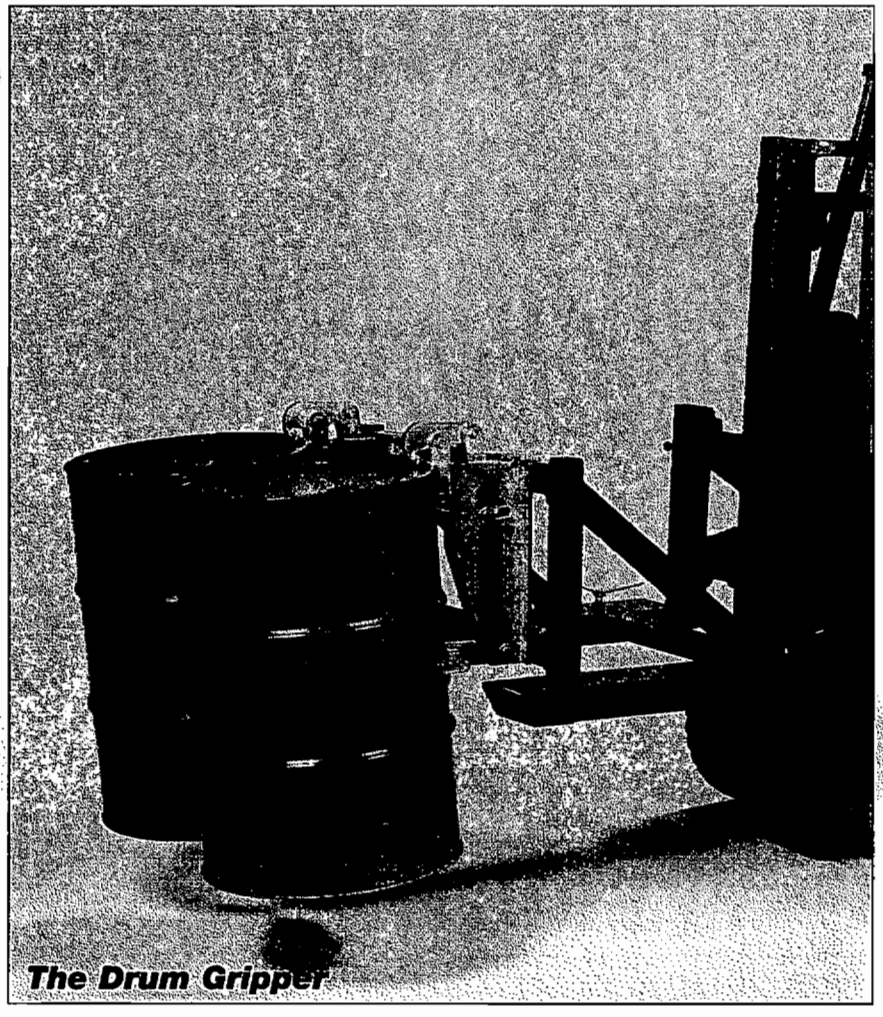


Model K52-3121: One Drum Capacity

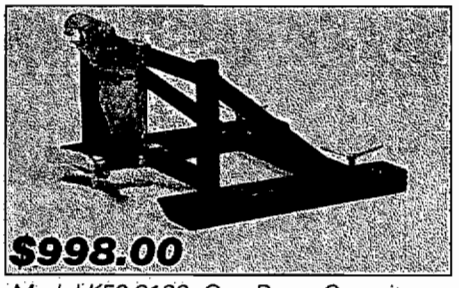


Model K52-3122: Two Drum Capacity





- ***The Drum Gripper*** *is designed to vertically lift steel 55-gallon drums. To operate, simply lower the grip onto the drum; to lift, tilt and raise the forks, the grip automatically locks and lifts the drum.*
- *Available with single or double drum capacities:*
  Single drum capacity: 800 lbs
  Double drum capacity:1600 lbs
- *Not for plastic drums*
- *Fits most standard fork sizes*



Model K52-3126: One Drum Capacity

Model K52-3127: Two Drum Capacity

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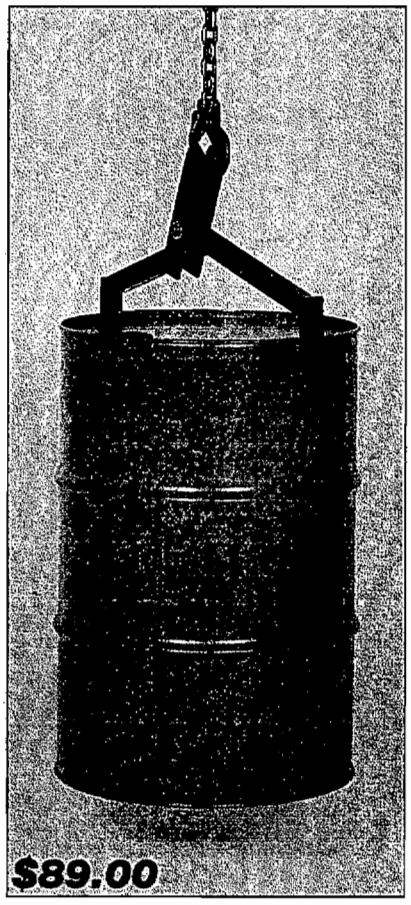
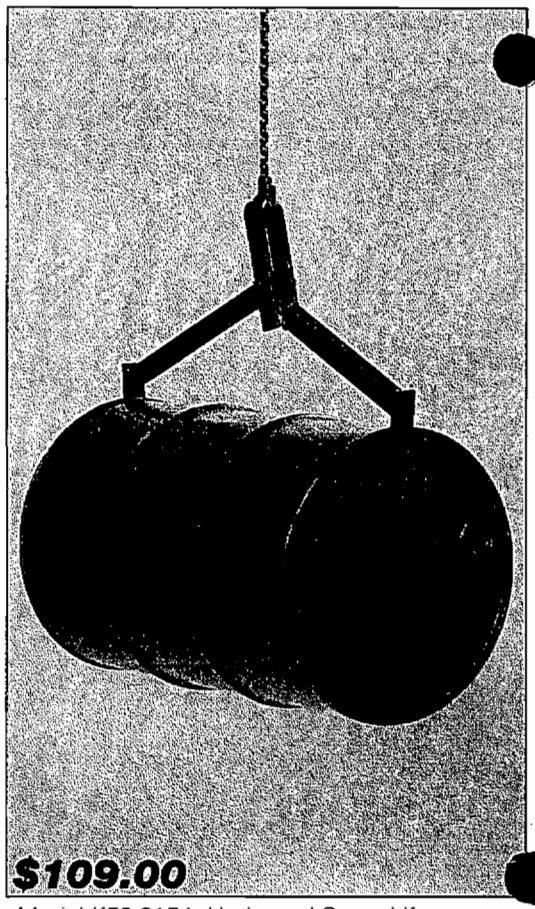
Overhead Drum Lifters

Attach the Overhead Drum Lifter to a hoist, crane, or forklift and securely elevate and relocate 55-gallon steel drums (open- or closed-head). Overhead Drum Lifters are designed to allow operators to lift and maneuver drums safely and effortlessly.

- *Single drum capacity: 800 lbs*
- *Use to place drums on any P&D Pallet System*
- *Models available for horizontal or vertical drum positioning*
- *Not for plastic drums*
- *Not recommended for lifting empty or light weight drums*



Model K52-3151: Vertical Drum Lifter

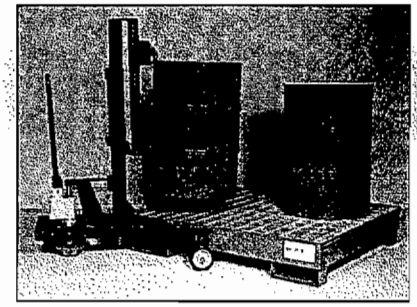


Model K52-3154: Horizontal Drum Lifter

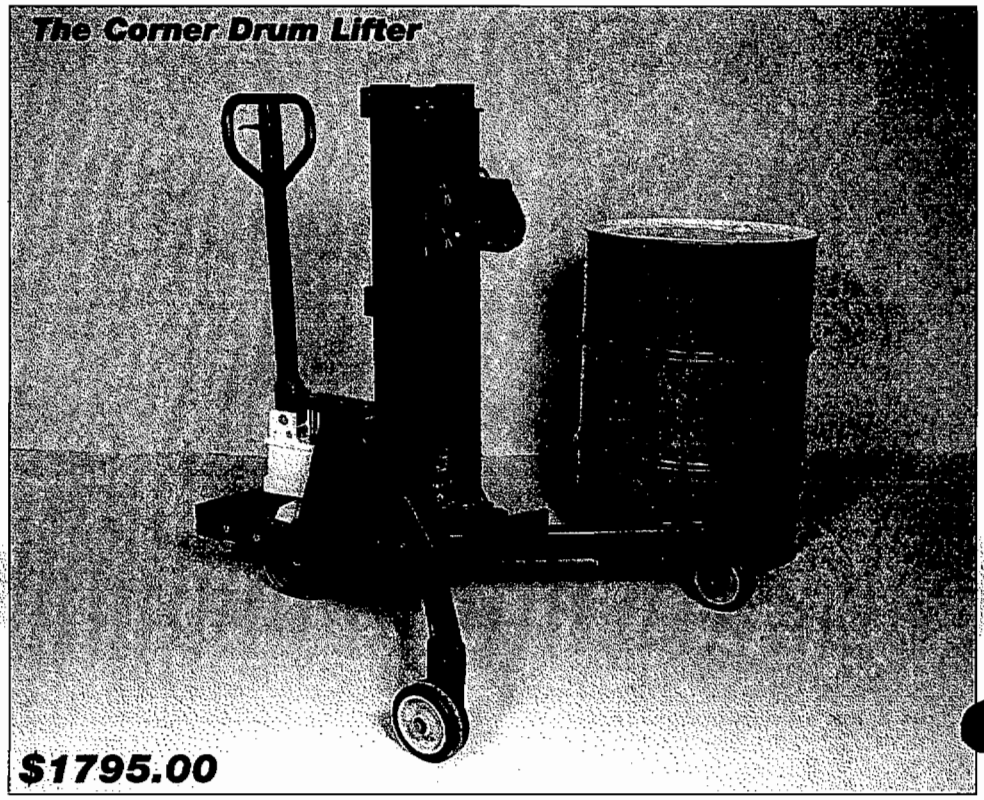
Corner Drum Lifters

Corner Drum Lifters are designed to hug the corners of pallets to place 30- and 55-gallon steel, plastic and fiber drums. The Ergonomic Hydraulic Pump Handle allows heavy drums to be lifted vertically (20" high) for placement. Heavy duty, 6" wheels enable effortless and safe movement.

- *Solid steel construction*
- *Single drum capacity*
- *Dimensions: 39"L x 44"D x 48"H*
- *Weight: 275 lbs.*



Use with most P&D spill pallets



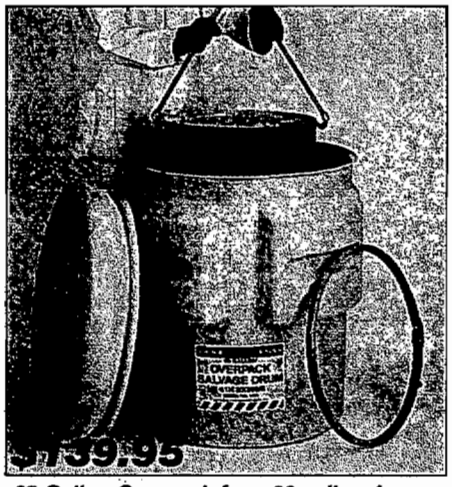
Model K52-3112: Corner Drum Lifter

Drum Overpacks

- *Can be used with hazardous materials packing groups I, II, and III*
- *United Nations-certified to HM-181*
- *Blow-molded high density polyethylene with UV inhibitors, safety yellow with removable head and securing band*
- *Ideal for secondary containment storage, transportation, and cleanup*
- *Forkliftable*

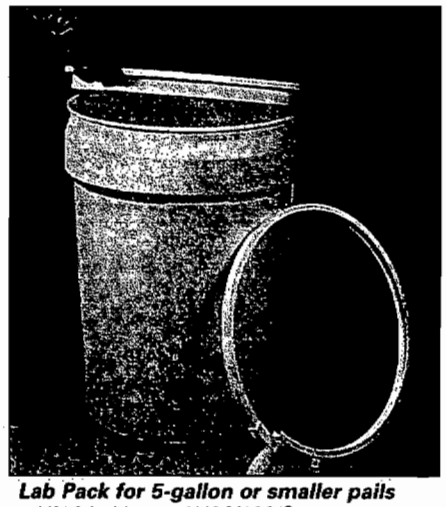
95 Gallon Overpack for a 55-gallon drum
- *UN Markings: 1H2/X340/S*
- *Meets DOT CFR 173.3(c) requirements*
- *Dimensions: 44½" High x 31"Diameter*
- *Weight: 58 lbs.*

Model K22-1695



65 Gallon Overpack for a 30-gallon drum
- *UN Markings: 1H2/X200/S*
- *Meets DOT CFR 173.3(c) requirements*
- *Dimensions: 39" High x 31"Diameter*
- *Weight: 53 lbs.*

Model K22-1665



Lab Pack for 5-gallon or smaller pails
- *UN Markings: 1H2/X100/S*
- *Meets DOT CFR 173.12(b) requirements*
- *Dimensions: 28½" High x 21⅛" Dia.*
- *Weight: 14 lbs.*

Model K22-1601

Spill Kits

Spill kits can absorb hydrocarbons while repelling water. Spill kits for absorbing acids/caustics and other liquids are also available. Each kit includes:

- *One (1) HDPE Overpack or Lab Pack, safety yellow with removable head and securing band*
- *3" x 48" white sorbent mini booms, 3" x 96" white sorbent mini booms, and 17" x 19" white sorbent pads (see below for exact quantities)*
- *One Spill Kit Pack containing 1lb of plug material, 1 pair of nitrile gloves, 2 wooden bungs, 2 waste bags*

OSHA 29 CFR 1910-120(j)(vii)
U.S. Department of Transportation specified salvage drums or containers and suitable quantities of proper absorbent shall be kept available and used in areas where spills, leaks, or ruptures may occur.

65 Gallon Spill Kit
- *UN Markings: 1H2/X200/S*
- *65-gallon Overpack*
- *3 ea - 3" x 96" white sorbent mini booms*
- *5 ea - 3" x 48" white sorbent mini booms*
- *300 ea - 7" x 19" white sorbent pads*
- *Spill kit pack*

Model M28-1665

30 Gallon Spill Kit
- *UN Markings: 1H2/X100/S*
- *30-gallon Lab Pack*
- *2 ea - 3" x 96" white sorbent mini booms*
- *3 ea - 3" x 48" white sorbent mini booms*
- *100 ea - 7" x 19" white sorbent pads*
- *Spill kit pack*

Model M28-1601

20 Gallon Spill Kit
- *UN Markings: 1H2/X75/S*
- *20-gallon Lab Pack*
- *2 ea - 3" x 96" white sorbent mini booms*
- *2 ea - 3" x 48" white sorbent mini booms*
- *75 ea - 7" x 19" white sorbent pads*
- *Spill kit pack*

Model M28-1652

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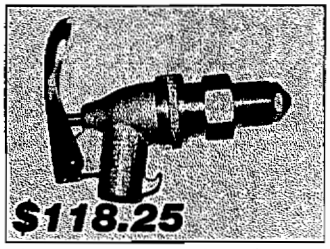
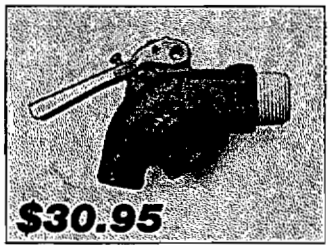
ACCESSORIES



Self-closing, Stainless Steel Faucet

- *For 3/4" NPT bung in steel or plastic drums*
- *For acid and corrosive flammable and non-flammable liquids*
- *Features a Teflon seal and flame arrestor*
- *Adjustable*

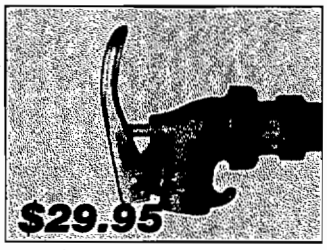
Model M32-0061



Self-closing, Brass Faucet

- *For 3/4" NPT bung in steel or plastic drums*
- *For flammable and non-flammable liquids*
- *Features a Teflon seal and flame arrestor*

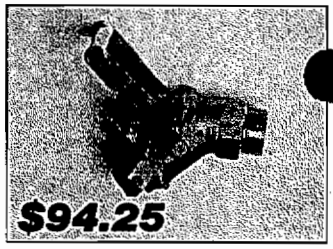
Model M32-0062



Self-closing, Brass Faucet

- *For 3/4" NPT bung in steel or plastic drums*
- *For flammable and non-flamable liquids (for oils up to 30W)*
- *Features a Teflon seal and flame arrestor*

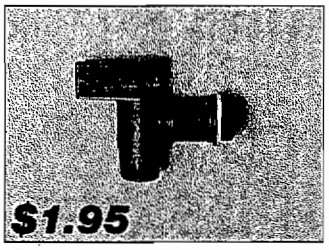
Model M32-0023



Gate Valve, Brass Faucet

- *For 2" NPT bung in steel or plastic drums*
- *For non-flammable viscous materials (for oils above 30W)*
- *Features a Teflon seal*

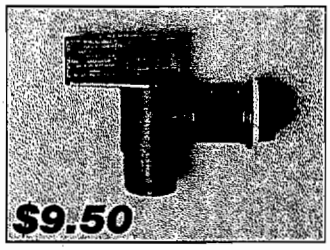
Model M32-0024



¾" Polyethylene Faucet

- *For ¾" NPT bung in steel or plastic drums*
- *Perfect for acid and corrosive liquids*
- *Drains liquids quickly*
- *Not to be used for temperatures above 140°*

Model M32-0008



2"Polyethylene Faucet

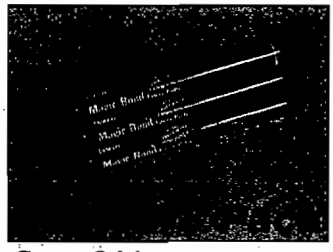
- *For 2" NPT bung in steel or plastic drums*
- *Perfect for acid and corrosive liquids*
- *Drains liquids quickly*
- *Not to be used for temperatures above 140°*

Model M32-0009

Drum Patch Kit

- *Make fast, permanent repairs to drums and other containers in minutes with this adhesive patching system*
- *Hardens to a tough, durable, waterproof finish in minutes.*
- *Adheres well to steel, stainless steel, titanium, aluminum, fiberglass, acrylics, PVC and most plastic drums and containers*
- *2 Kits per Pack*

Model K22-1699



Epoxy Stick

- *Convenient stick, hand kneadable*
- *A two-part epoxy putty stick which permanently repairs leaks, holes, and cracks in metal and fiberglass drums and tanks.*
- *Bonds to wet surfaces, fast curing*
- *Can be machined, sanded, painted, tapped, and drilled*
- *NSF Approved*
- *3 Sticks per Pack*

Model K22-1698

Drum Funnel & Cover

- *Yellow HDPE Construction with high sidewalls to contain splashing when pouring,*
- *18" diameter*
- *Fits into any 2" NPT bung*
- *For 30- and 55-gallon drums*
- *Optional funnel cover keeps funnel clean and seals out contaminants*

Funnel - Model K22-1660 $23.95/ea

Cover - Model K22-1664 $10.95/ea

Combo - Model K22-1663 $34.90/ea

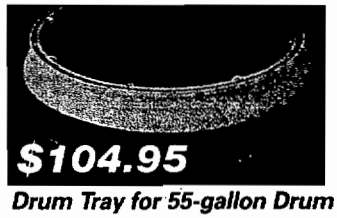
Reusable Drip Pans

- *HDPE Pan filled with polypropylene sorbent for oils, water based and other non-aggressive liquids for placement under faucets to absorb drips and spills*
- *Holds up to 1 gallon of liquid*
- *11" square, 3" high*
- *6 pans/ 6 pillows*

Model K22-1670 $41.95/ 6 Pack

Polypropylene Sorbent Pads

Model K22-1671 $48.95/20 Pack



Drum Tray for 55-gallon Drum

- *Yellow HDPE Construction with Casters*
- *Features a reservoir with raised supports to keep container away from spills*
- *10" high, 31" diameter / 20 lbs.*

Model K22-1614

Drum Covers

- *Yellow HDPE Construction*
- *Snap-on design*
- *Sloped design to prevent pooling of liquids*
- *24" diameter / 2.5 lbs.*

Model K22-1666 for 55-gallon closed head, metal drums

Model K22-1667 for 55-gallon open head, metal drums

P&D INFORMATION 2

Storage Systems

P&D is known the world over for its innovative, non-occupancy multi-drum storage systems. Ideally suited for storing a wide range of materials, these containers can be specified with a complete range of options.

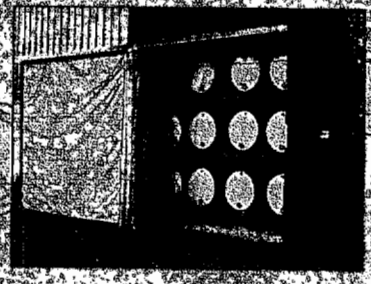
Occupancy Storage Systems

Storage system with manway doors allow physical access to stored materials for mixing and dispensing.

Page 31

Non-Occupancy Storage Systems

Systems designed with full face opening doors allow personnel to access, maneuver or work with stored materials without entering a hazardous area.



P&D Designs Provide:

- 1, 2 or 3 Tiers for maximum drum storage per square foot of facility space
- Full access to all drums with a variety of door styles: Sliding, Hinged or Roll-up
- Single or double wide units
- Vertical, Horizontal and IBC Storage
- The security of sound environmental management and the protection of personnel and facilities

Pages 32-35

Heated Storage Cabinets

Systems designed for heating, melting or maintaining chemicals at temperatures up to 300°F.

Page 37

Gas Cylinder Storage

Gas cylinders are stored in an upright and secure position in a non-combustible structure per NFPA 55.

Pages 38-39

Flammable & Combustible Storage:

Flammable and combustible liquids should be stored in accordance with NFPA 30, UFC, OSHA and the local authorities having jurisdiction. The design and capacity of the storage systems depend upon the class and quantity of materials being stored and the placement of the storage system.

Page 36

Ventilation

Passive or mechanical exhaust ventilation provides a change of air within the storage system as required by OSHA and NFPA 30 for the prevention of fire and explosion from the accumulation of vapor-air mixtures.

Mechanical ventilation should be used when dispensing Class I Flammables.

Dry Chemical Fire Suppression System:

Pre-engineered, automatic Dry Chemical Fire Suppression Systems are designed to isolate and contain a fire within the storage system in accordance with NFPA 30 and NFPA 17, "Standard For Dry Chemical Extinguishing Systems." If a fire occurs within the system, a fusible link will actuate the extinguising system and sound an alarm. Systems are UL Listed and FM approved.

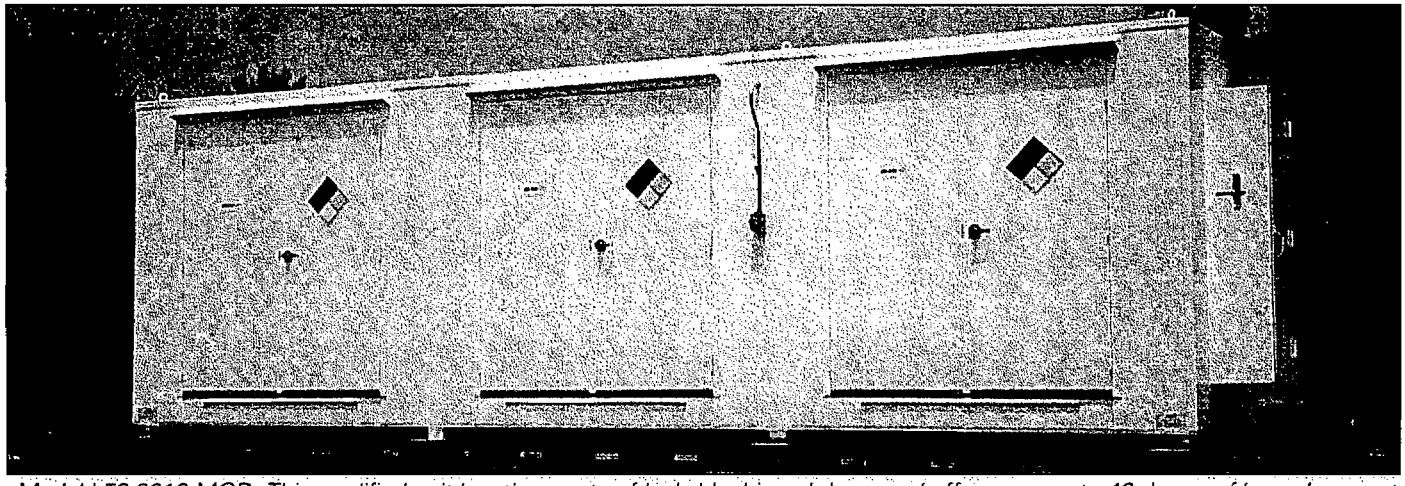
Grounding Regulations:

OSHA-29 CFR 1910.107(e)(9) Grounding.

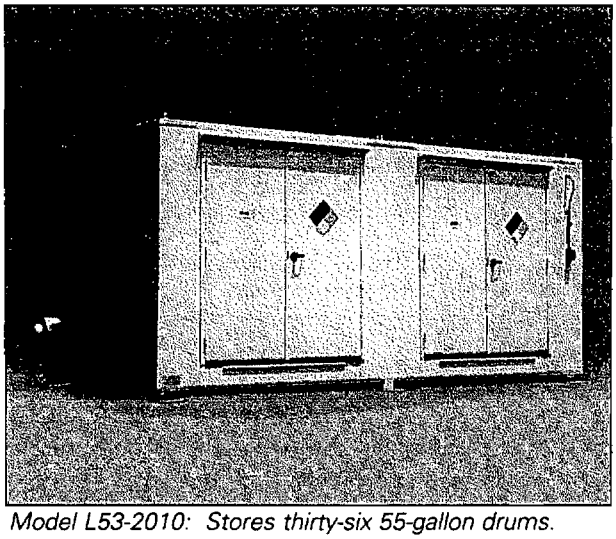
Whenever flammable and combustible liquids are transferred from one container to another, both containers shall be effectively bonded and grounded to prevent discharge sparks of static electricity.

Occupancy - Enclosed Storage Systems

Store, mix and dispense chemicals safely over an internal spill containment sump in an enclosed storage system which provides walk-in accessibility to all materials stored. Standard systems have a non-combustible structure, but can be fire rated, insulated, heated or cooled as individual storage requirements dictate. Systems can be placed in- or outdoors, and can be relocated as storage needs change.



Model L53-2010-MOD: This modified unit has three sets of lockable, hinged doors and offers access to 42 drums of hazardous materials.



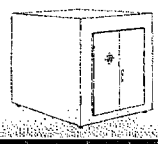
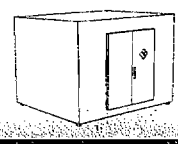
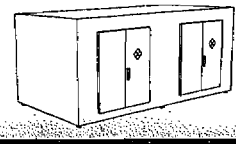
Model L53-2010: Stores thirty-six 55-gallon drums. System equipped with optional explosion proof Mechanical Ventilation.

Occupancy - Enclosed Storage Systems features:

- *A solidly welded frame construction for superior stability and rigidity*
- *Double, hinged doors provide easy access for palletized loads*
- *Doors provided with hold open and inside release features*
- *A corrosion and weather resistant finish*
- *Removable, galvanized steel grating for easy clean-up of spills*
- *Sump volumes which exceed EPA, UFC, NFPA, and OSHA regulations*
- *Grounding package includes grounding lugs, connector and rod*
- *Relocatable via forklift or crane*

Options - Tailor a Unit for Specific Purposes:

- *Subdivide units to provide separation of incompatible materials*
- *Affix shelving to interior walls to store smaller containers*
- *Choose from a range of other options: Mechanical Ventilation, Lighting, Access Ramps, Fire Suppression, Fire Rating, Temperature Control, Poly Sump Liners, Fiberglass Grating*
- *Other sizes available*

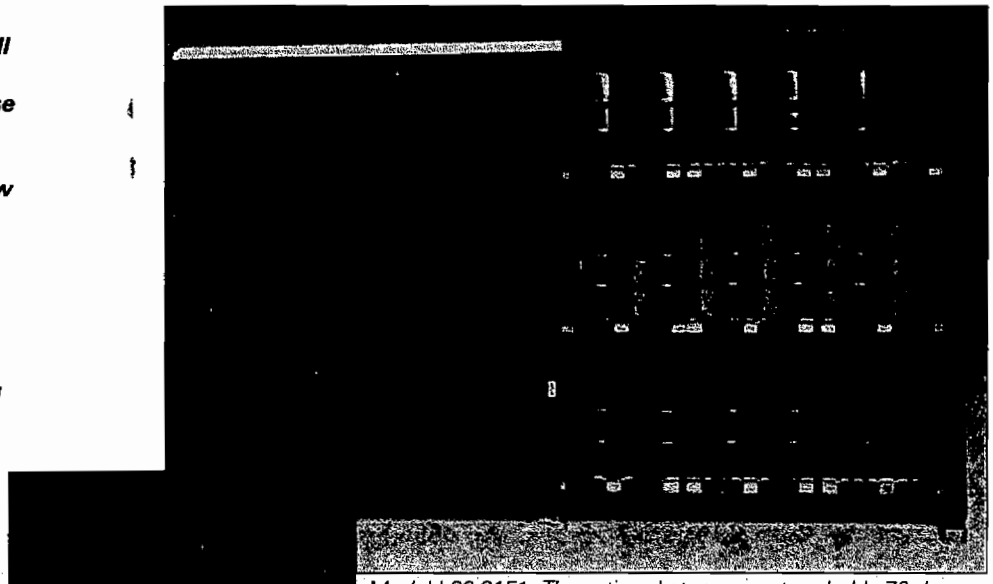




Nominal Dimensions	L x D	(ft)	12 x 10	16 x 10	20 x 10
Nominal Height		(ft)	9	9	9
Inside Dimensions		(ft)	10'8" x 8'6"	14'8" x 8'6"	18'8" x 8'5"
Inside Height		(ft)	7'6"	7'6"	7'6"
Sump Volume		(gal)	350	480	600
Load Capacity		(lbs)	250 psf	250 psf	250 psf
Door Size		(in)	72" x 82"	72" x 82"	72" x 82"
Storage Capacity		(55-gal. drums)	20	28	36

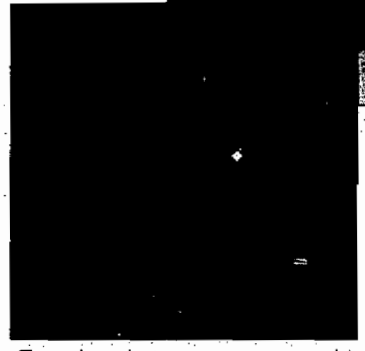
NON-OCCUPANCY – ENCLOSED STORAGE SYSTEMS

Store chemicals safely and securely over a spill containment sump in full regulatory compliance. Designed to optimize limited storage areas, these Non-Occupancy Storage Systems store palletized drums on 1, 2, or 3 tiers. Full-face opening doors allow the forklift operator to access all materials stored.

- *Sump of heavy duty steel*
- *Sump volumes meet or exceed EPA & NFPA requirements*
- *Removable, galvanized steel grating*
- *Sump welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Extra strength, tubular steel construction*
- *Rugged galvannealed steel sides & roof*
- *Anchor plates for securing structure*
- *Passive ventilation is standard*
- *Grounding package includes grounding lug, connector and rod*
- *PVC Curtains available for 1 and 2 tiered units*



Model L39-3151: Three tiered storage system holds 72 drums.



Two tiered storage system with hinged doors holds 24 drums.

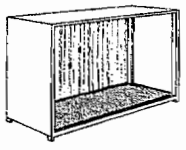
EPA - 40 CFR Subpart 1 – 264-175 Containment

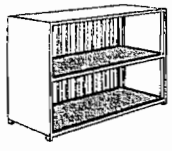
(3) The containment system must have sufficient capacity to contain 10% of the volume of the containers or the volume of the largest container, whichever is greater. ...

NFPA 30 Section 4.6.3.5 Spill or Leakage Control

Lockers shall include a spill containment system to prevent the flow of liquids from the structure under emergency conditions. The containment system shall have sufficient capacity to contain 10%o f the volume of containers allowed or the volume of the largest container, whichever is greater.

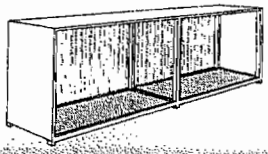
14' LONG x 5' DEEP Holds 12 Drums per Tier One Sided Access

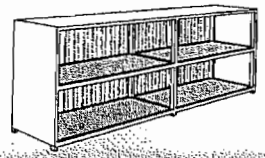


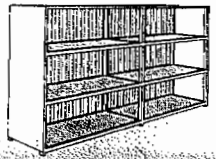


Nominal Dimensions	L x D (ft)	14' x 5'	14' x 5'	14' x 5'
Nominal Height	(ft)	9'	10'	15'
Inside Dimensions	(ft)	13' x 4'2"	13' x 4'2"	13' x 4'2"
Inside Height	(ft)	7'6"	2 x 4'2"	3 x 4'2"
Sump Volume	(gal)	208	208	208
Load Capacity	(lbs)	250 psf	250 psf	250 psf
Storage Capacity	(55 gal. drums)	12	24	36

27' LONG x 5' DEEP Holds 24 Drums per Tier One Sided Access







Nominal Dimensions	L x D (ft)	27' x 5'	27' x 5'	27' x 5'
Nominal Height	(ft)	9'	10'	15'
Inside Dimensions	(ft)	26' x 4'2"	26' x 4'2"	26' x 4'2"
Inside Height	(ft)	7'6"	2 x 4'2"	3 x 4'2"
Sump Volume	(gal)	417	417	417
Load Capacity	(lbs)	250 psf	250 psf	250 psf
Storage Capacity	(55 gal. drums)	24	48	72

Standard Door Configurations: *(All Units are available without Doors) • Sliding Doors are standard on 27' Long, 1 and 2 Tiered Units • Hinged Doors are standard on 14' Long, 1 and 2 Tiered Units • Sliding Doors are standard on all 3 Tiered Units*

Note: Three tiered units are shipped in two sections. Design allows for easy assembly.

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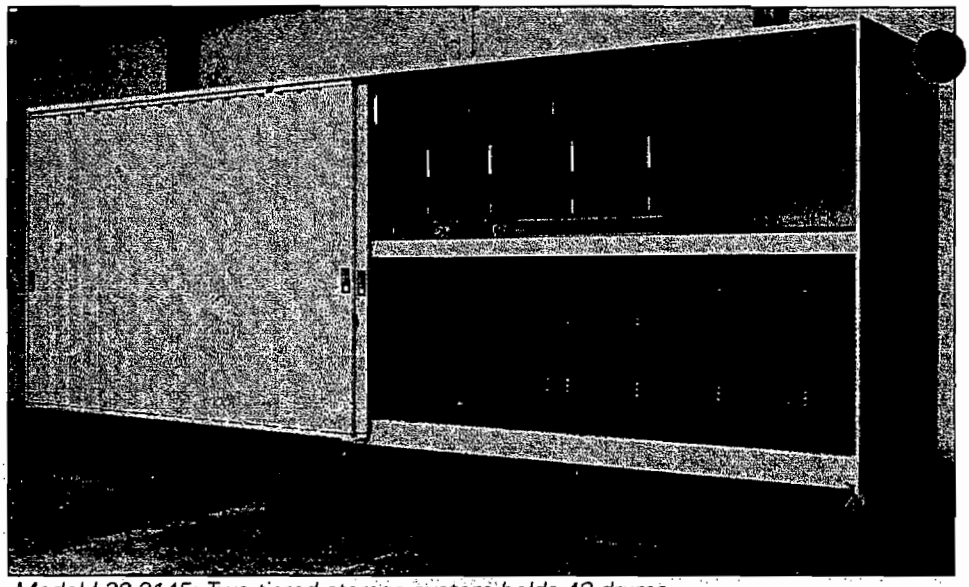
NON-OCCUPANCY – ENCLOSED STORAGE SYSTEMS

Non-Occupancy Storage Systems are designed with full-face opening doors which allow operators to access, maneuver, or work with materials being stored without having to enter a hazardous area. Since physical entry is not necessitated, elaborate confined space regulations do not apply.

- *Coated with a durable, corrosion and weather resistant finish*
- *Units available with lockable, Hinged or Sliding Doors*
- *Roll-up doors available for 2 and 3 tier units*
- *Greater sump volumes are available upon request*
- *Clearance from ground to bottom of the sump is 4 inches for forklift access*
- *PVC Curtains available for 1 and 2 tiered units*



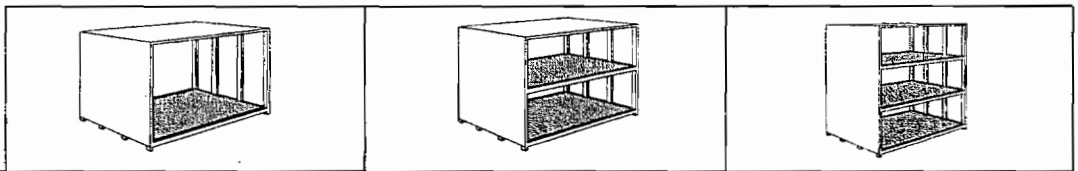
Model L39-3145: Two tiered storage system holds 48 drums.

ENGINEERED OPTIONS:

- *2 & 4-Hour Fire Rated Flammable Storage Systems*
- *Fire Suppression*
- *Fiberglass Grating*
- *Mechanical Ventilation*
- *Temperature Control Systems*
- *Poly Sump Liners*
- *Leak Detection*
- *Explosion Relief Panels*
- *Explosion Proof Lighting*

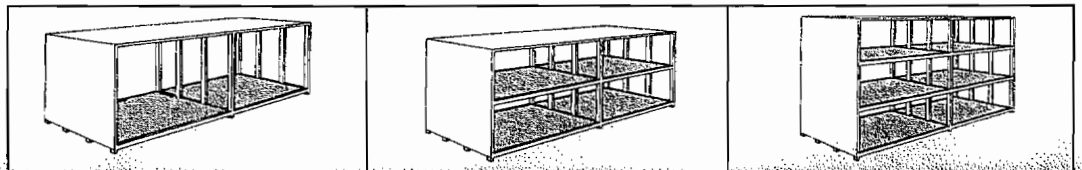
See Pages 25 - 27 for Drum Handling Equipment

14' LONG x 9' DEEP
Holds 24 Drums per Tier
Two Sided Access



Nominal Dimensions L x D	(ft)	14' x 9'	14' x 9'	14' x 9'
Nominal Height	(ft)	9'	10'	15'
Inside Dimensions	(ft)	13' x 8'4"	13' x 8'4"	13' x 8'4"
Inside Height	(ft)	7'6"	2 x 4'2"	3 x 4'2"
Sump Volume	(gal)	385	385	452
Load Capacity	(lbs)	250 psf	250 psf	250 psf
Storage Capacity	(55 gal. drums)	24	48	72

27' LONG x 10' DEEP
Holds 48 Drums per Tier
Two Sided Access

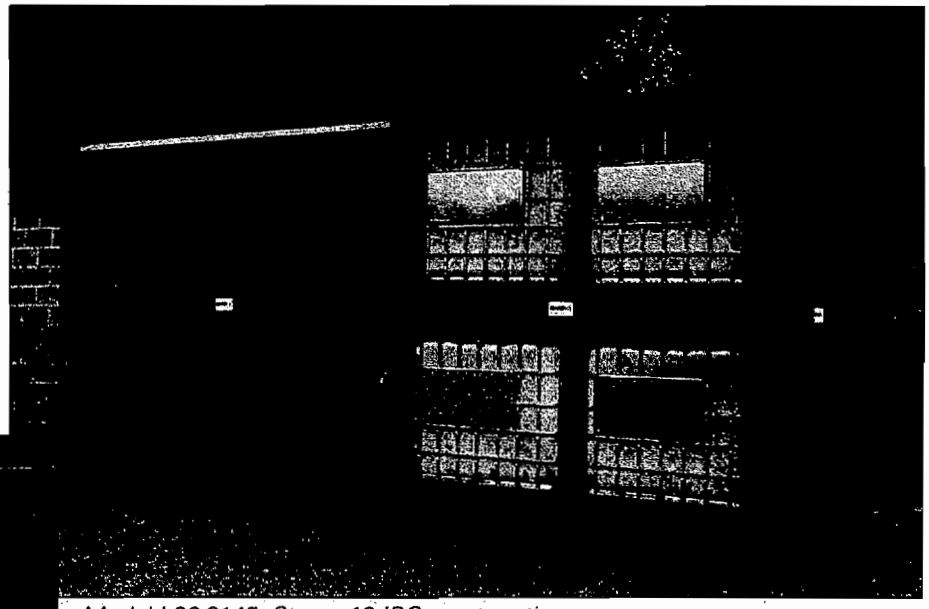


Nominal Dimensions L x D	(ft)	27' x 10'	27' x 10'	27' x 10'
Nominal Height	(ft)	9'	10'	15'
Inside Dimensions	(ft)	26' x 8'4"	26' x 8'4"	26' x 8'4"
Inside Height	(ft)	7'6"	2 x 4'2"	3 x 4'2"
Sump Volume	(gal)	770	770	905
Load Capacity	(lbs)	250 psf	250 psf	250 psf
Storage Capacity	(55 gal. drums)	48	96	144

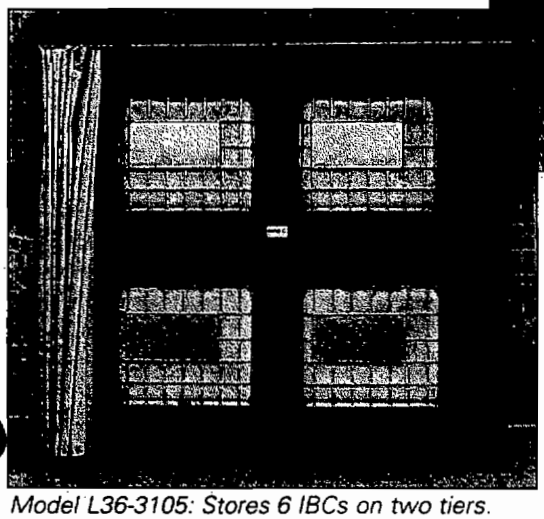
Standard Door Configurations: *(All Units are available without Doors)* • *Sliding Doors are standard on 27' Long, 1 and 2 Tiered Units* • *Hinged Doors are standard on 14' Long, 1 and 2 Tiered Units* • *Sliding Doors are standard on all 3 Tiered Units*
Note: Three tiered units are shipped in two sections. Design allows for easy assembly.

NON-OCCUPANCY – ENCLOSED SYSTEMS FOR IBC's

- *Sump of heavy gauge steel for extended life*
- *Sump welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Sump volumes meet EPA & NFPA requirements*
- *Removable, galvanized steel grating*
- *Extra strength, tubular steel construction*
- *Rugged galvannealed steel sides & roof*
- *Coated with a durable, corrosion and weather resistant finish*
- *Grounding package includes grounding lug, connector and rod*



Model L36-3145: Stores 12 IBCs on two tiers.

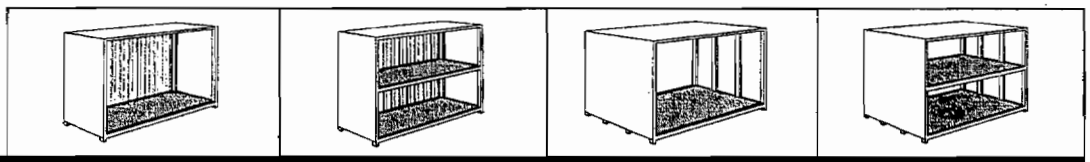


Model L36-3105: Stores 6 IBCs on two tiers.

These Storage Systems have been specially designed for Intermediate Bulk Containers (IBCs). The sump volume exceeds mandatory Federal Regulations which provides spill compliance while storing Hazardous Materials. Full-face opening doors provide access to IBCs without the need to physically enter the structure.

14' LONG

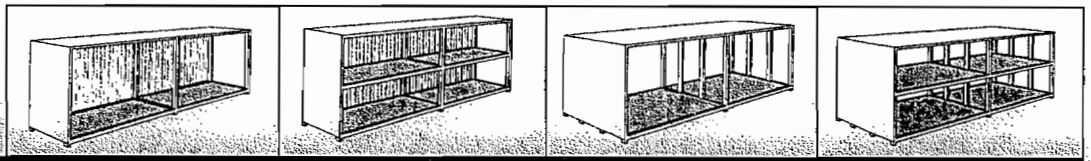
5' Deep Units offer One Sided Access
9' Deep Units offer Two Sided Access



Nominal Dimensions	L x D (ft)	14' x 5'	14' x 5'	14' x 9'	14' x 9'
Nominal Height	(ft)	9'	12'	9'	12'
Inside Dimensions	(ft)	13' x 4'2"	13' x 4'2"	13' x 8'6"	13' x 8'6"
Inside Height	(ft)	7'	2 x 5'1"	7'3"	2 x 5'2"
Sump Volume	(gal)	390	390	520	520
Load Capacity	(lbs)	350 psf	350 psf	350 psf	350 psf
Storage Capacity	(350 gal. IBCs)	3	6	6	12

27' LONG

5' Deep Units offer One Sided Access
10' Deep Units offer Two Sided Access



Nominal Dimensions	L x D (ft)	27' x 5'	27' x 5'	27' x 10'	27' x 10'
Nominal Height	(ft)	9'	12'	9'	12'
Inside Dimensions	(ft)	26' x 4'2"	26' x 4'2"	26' x 8'6"	26' x 8'6"
Inside Height	(ft)	7'3"	2 x 5'2"	7'3"	2 x 5'2"
Sump Volume	(gal)	490	490	905	905
Load Capacity	(lbs)	350 psf	350 psf	350 psf	350 psf
Storage Capacity	(350 gal. IBCs)	6	12	12	24

Standard Door Configurations: *(All Units are available with PVC Sliding Curtains or without Doors) • Sliding Doors are standard on 27' Long Units • Hinged Doors are standard on 14' Long Units*

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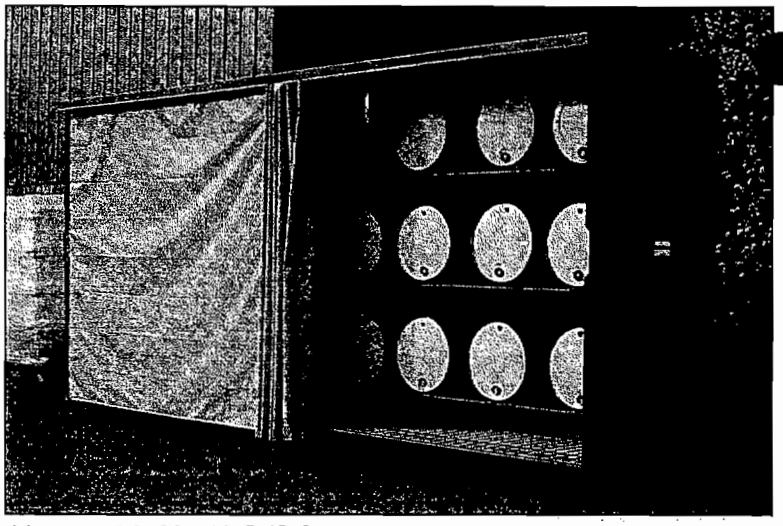
HORIZONTAL ENCLOSED STORAGE & OPEN STORAGE SYSTEMS

Dispense & Store Hazardous materials over a containment sump while providing spill compliance with Federal Regulations.

- *55-gallon Drum Dispensing Station*
- *No physical entry required*
- *Sump welds are 100% inspected with a low-viscous test to insure leaktightness*
- *Fully welded tubular frame construction*
- *2 or 3 tiered models maximize storage efficiency*
- *Passive ventilation included*
- *Grounding package includes grounding lug, connector and rod*

Regulations require grounding when dispensing Flammable and Combustible Materials



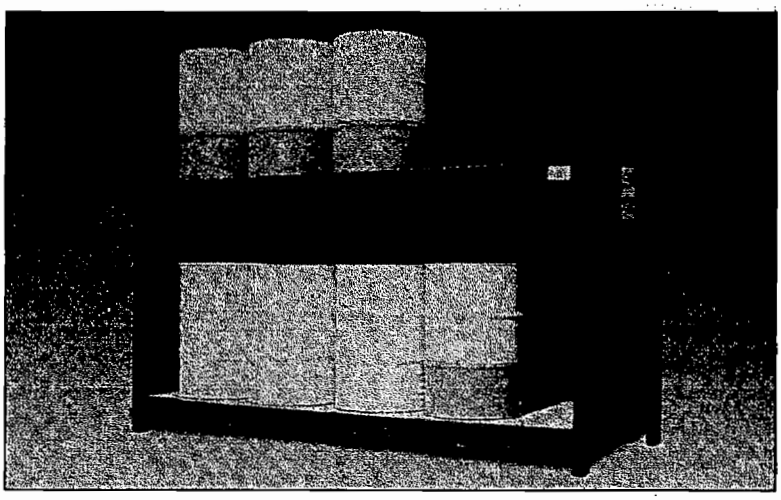
Model L16-3193 with PVC Curtains

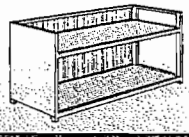


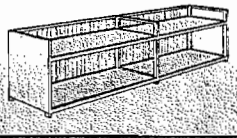
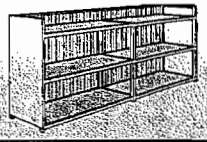

Nominal Dimensions	L x D (ft)	14' x 5'	14' x 5'	27' x 5'	27' x 5'
Nominal Height	(ft)	9'	10'	9'	10'
Inside Dimensions	(ft)	13' x 4'2"	13' x 4'2"	26' x 4'2"	26' x 4'2"
Inside Height	(ft)	2 x 34"	3 x 34"	2 x 34"	3 x 34"
Sump Volume	(gal)	208	208	417	417
Number of Tiers		2	3	2	3
Storage Capacity	(55 gal. drums)	10	15	20	30

Ideal for Indoor Storage of Non-Flammables and Non-Combustibles, where fumes and separation are not factors

- *Construction of heavy gauge steel for extended life*
- *Sump volumes meet or exceed EPA requirements*
- *Removable, galvanized steel grating*
- *Coated with a durable, corrosion resistant finish*
- *Greater sump volumes available upon request*





Nominal Dimensions	L x D (ft)	14' x 5'	14' x 5'	27' x 5'	27' x 5'
Nominal Height	(ft)	7'	12'	7'	12'
Inside Dimensions	(ft)	13' x 4'2"	13' x 4'2"	26' x 4'2"	26' x 4'2"
Sump Volume	(gal)	208	208	417	417
Load Capacity	(lbs)	250 psf	250 psf	250 psf	250 psf
Storage Capacity	(55 gal. drums)	24	36	48	72

FIRE RATED, FLAMMABLE STORAGE SYSTEMS

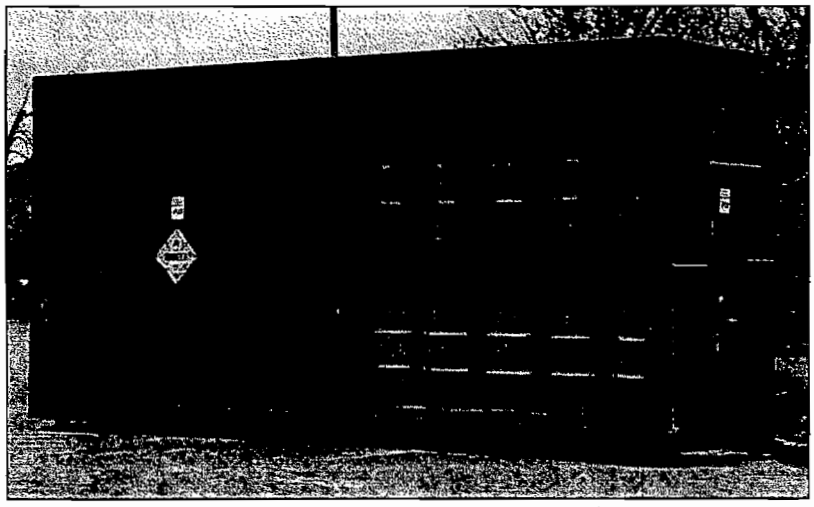
P&D's Fire Rated, Flammable Storage Systems are prefabricated structures intended for the storage of flammable and combustible materials. Following UL Standards, units are manufactured from non-combustible materials encased by steel panels on both interior and exterior sides. System configurations are based on standard designs found on pages 31-35.

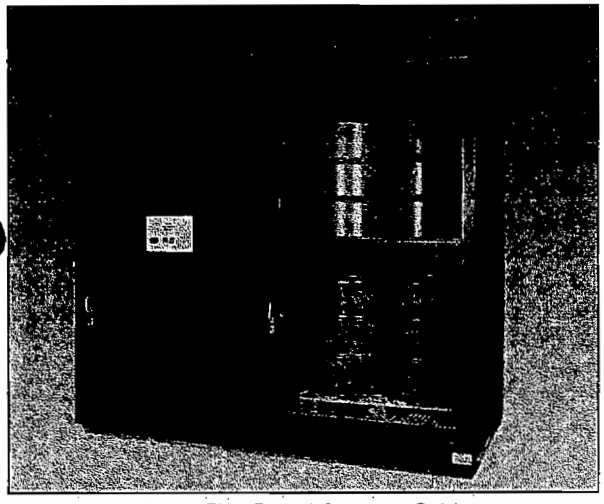
Design Styles:

- *2 Hr - 2 Hour Fire Rated Walls, Roof, & Sump 1½ Hour Rated Doors*
- *4 Hr - 4 Hour Fire Rated Walls, Roof, & Sump 3 Hour Rated Doors*

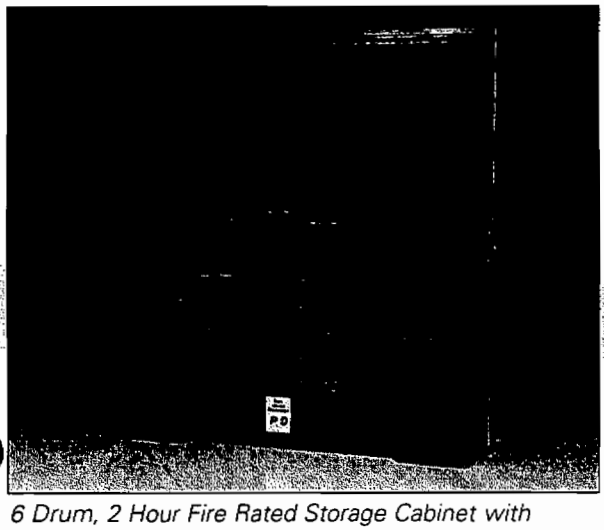
Suggested Options:

- *Mechanical Ventilation*
- *Dry Chemical Fire Suppression Systems*
- *Deflagration Venting*





16 Drum, 2 Hour Fire Rated Storage Cabinet



6 Drum, 2 Hour Fire Rated Storage Cabinet with Deflagration Venting

Flammable & Combustible Storage:

Flammable and combustible liquids should be stored in accordance with NFPA 30, UFC, OSHA, and the local authorities having jurisdiction. The design and capacity of the storage system depend on the class and quantity of materials being stored and the placement of the storage system.

FLAMMABLE & COMBUSTIBLE LIQUID CLASSIFICATION

Flammable Liquids		
IA	Below 73°F (22.8°C)	Below 100°F (37.8°C)
IB	Below 73°F (22.8°C)	At or above 100°F (37.8°C)
IC	At or above 73°F (22.8°C) and below 100°F (37.8°C)	N/A
Combustible Liquids		
II	At or above 100°F (37.8°C) and below 140°F (60°C)	N/A
IIIA	At or above 140°F (60°C) and below 200°F (93.3°C)	N/A
IIIB	At or above 200°F (93.3°C)	N/A

Note: *Classification changes when liquids are heated or mixed.*

Ventilation:

Passive or mechanical exhaust ventilation provides a change of air within the storage system as required by OSHA and NFPA 30 for the prevention of fire and explosion from the accumulation of concentrations of vapor-air mixtures. Mechanical ventilation should be used when dispensing Class I Flammables.

Dry Chemical Fire Suppression System:

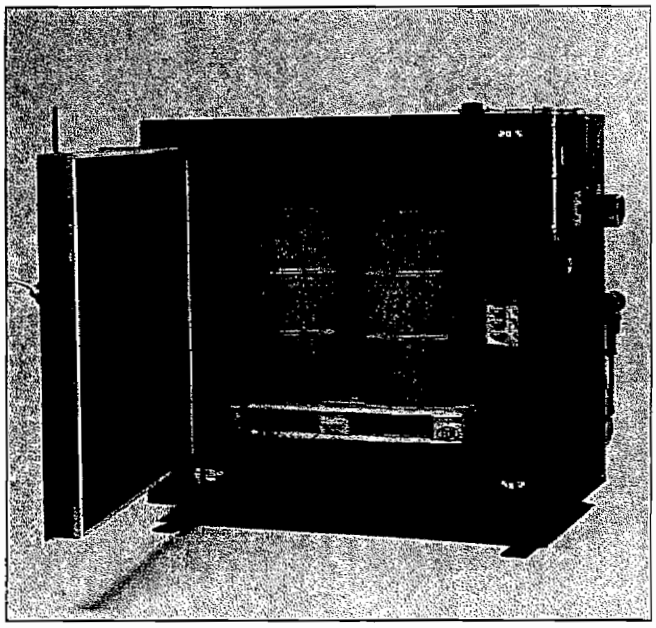
Pre-engineered, automatic, Dry Chemical Fire Suppression Systems are designed to isolate and contain a fire within the storage system in accordance with NFPA 30 and NFPA 17, "Standard For Dry Chemical Extinguishing Systems." If a fire occurs within the system, a Fusible Link will actuate the extinguishing system and sound an alarm. Systems are UL Listed and FM approved.

OSHA - 29 CFR 1910.107(E)(9) Grounding

Whenever flammable or combustible liquids are transferred from one container to another, both containers shall be effectively bonded and grounded to prevent discharge sparks of static electricity

Phone: 1-800-216-7776 • Fax: 1-502-933-1560 • E-Mail: hazmatpro@bellsouth.net

HEATED STORAGE CABINETS



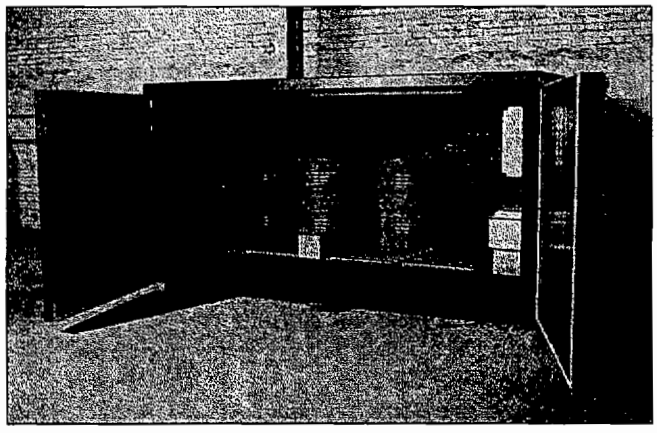
Model P23-3401: Maintains 4 drums with steam heat at 250°F.

Heat chemicals up to 300°F in a Heated Storage Cabinet with electric or steam heat. Cabinets heat, melt or maintain temperatures required for storage or preparation of chemicals in process applications.

Cabinets are constructed with fully insulated walls and doors and coated with a corrosion resistant coating. To maintain internal temperatures, hinged doors are provided with perimeter gasketing and multi-point latching locks. These indoor/outdoor systems are equipped with UL listed options.

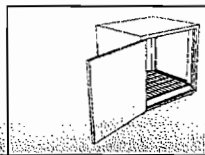
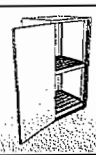
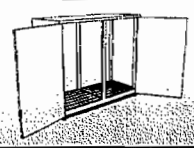
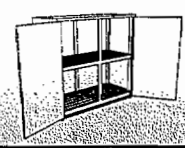
Options Include:

- *Explosion relief designs*
- *Programmable temperature controller*
- *Air circulation / venting*
- *Over temperature alarm system*
- *Safety interlocks for doors*
- *Larger sizes available for drum and IBC storage*
- *Auxillary enclosures for equipment and instrumentation*



Model P23-3403-MOD: Electrically heats 8 drums on one tier at 285°F.

This inside storage area heats-up and maintains sixty-four 55-gallon drums at 250°F for process temperatures.

		P23-3401	P23-3402	P23-3403	P23-3404
Nominal Dimensions L x D	(ft)	6' x 5'	6' x 5'	11' x 5'	11' x 5'
Nominal Height	(ft)	7'	11'	7'	11'
Inside Dimensions	(ft)	4'7" x 4'2"	4'7" x 4'2"	2 x 4'9" x 4'2"	2 x 4'9" x 4'2"
Inside Height	(ft)	5'	2 x 4'2"	5'	2 x 4'2"
Sump Volume	(gal)	77	77	166	166
Load Capacity	(lbs)	250 psf	250 psf	250 psf	250 psf
Storage Capacity	(350 gal. IBCs)	4	8	8	16

GAS CYLINDER STORAGE CABINETS

Store gas cylinders in an upright and secure position inside a non-combustible structure in accordance with NFPA 55.

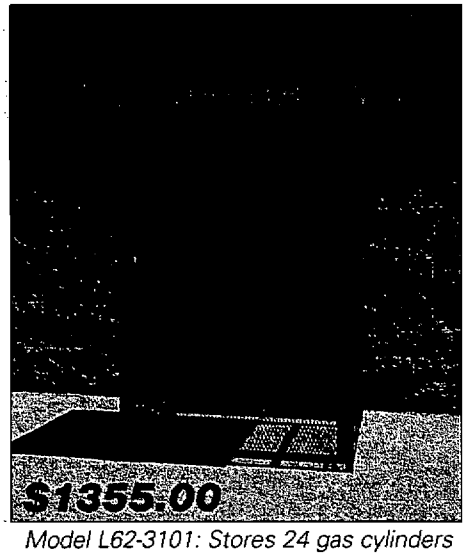
- *Heavy duty steel frame*
- *Painted steel construction*
- *Expanded metal sides and doors allow natural ventilation as well as visual inventory and inspection of cylinders*
- *Solid steel back & roof*
- *Lockable hinged doors provide secure storage and prevent unauthorized access*
- *Chains are adjustable to secure any number of cylinders stored*
- *Portable & Relocatable*
- *Shipped "Knock-Down" by common carrier - assembly is quick and easy*
- *No Flooring - System utilizes existing foundation as its base*

Model L62-3102: Stores 48 gas cylinders

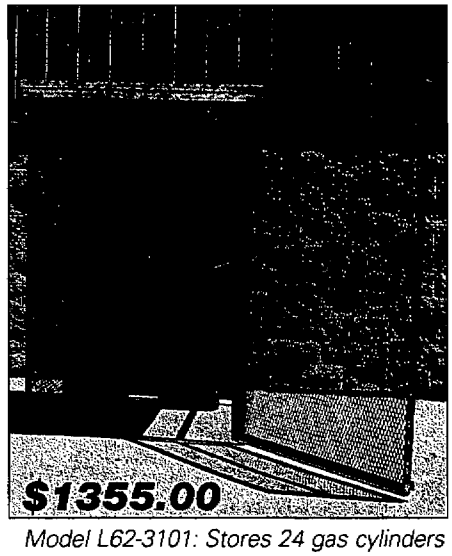
NFPA 55 - Storage, Use, and Handling of Compressed and Liquefied Gases in Portable Cylinders:

Chapter 2 - Storage

2-1.2 Storage areas shall be secured against unauthorized entry.
2-1.6.1 Outdoor storage areas shall have a minimum of 25 percent of the perimeter open to the atmosphere. This open space shall be permitted to incorporate chain link fence, lattice construction . . .
(c) Storage areas shall be provided with physical protection from vehicle damage.
d) Storage areas shall be permitted to be covered with canopies of noncombustible construction.

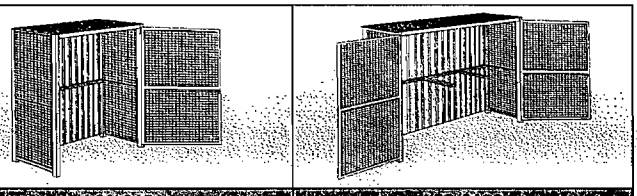


Model L62-3101: Stores 24 gas cylinders



Model L62-3101: Stores 24 gas cylinders

Gas Cylinder Storage Cabinets can accommodate Cylinder Caddies.



Model	L62-3101	L62-3102
Nominal Dimensions L x D (ft)	6' x 5'	11' x 5'
Nominal Height (ft)	8'	8'
Storage Capacity	24 Gas Cylinders	48 Gas Cylinders
Weight (lbs)	700	1400
Price	**$1355.00**	**$2197.00**

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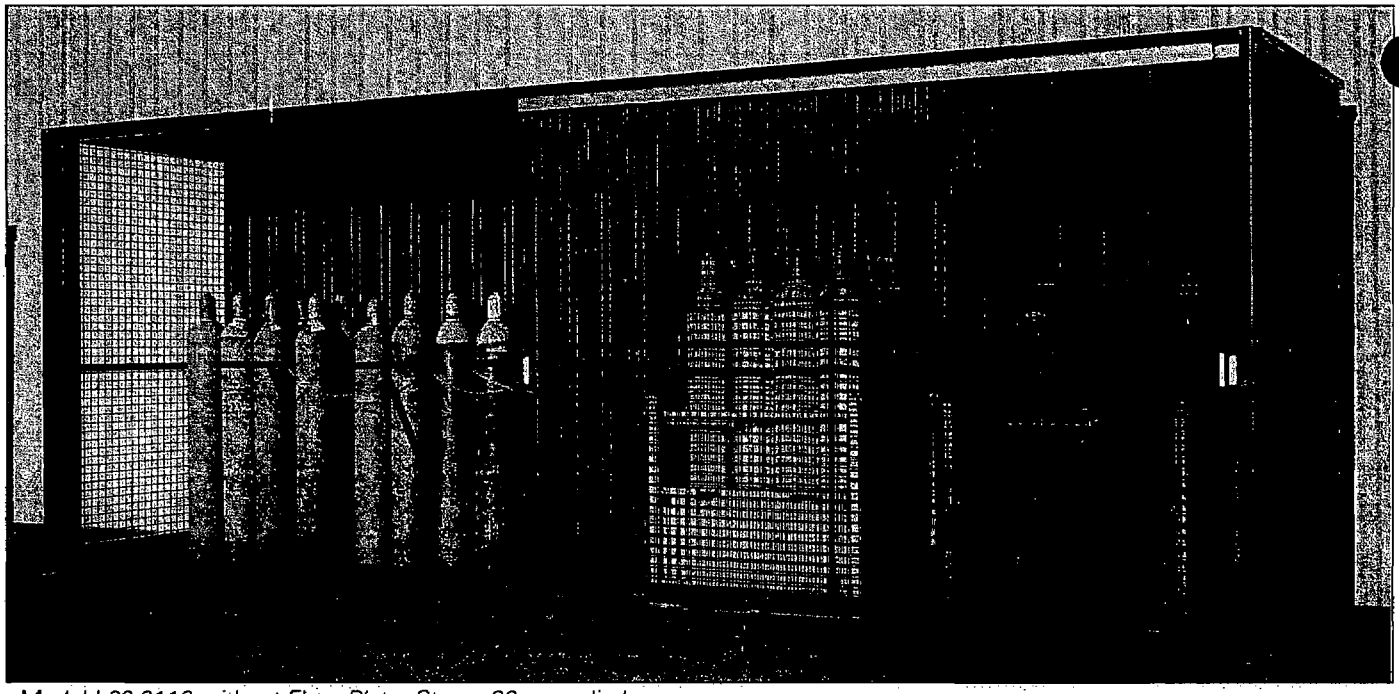
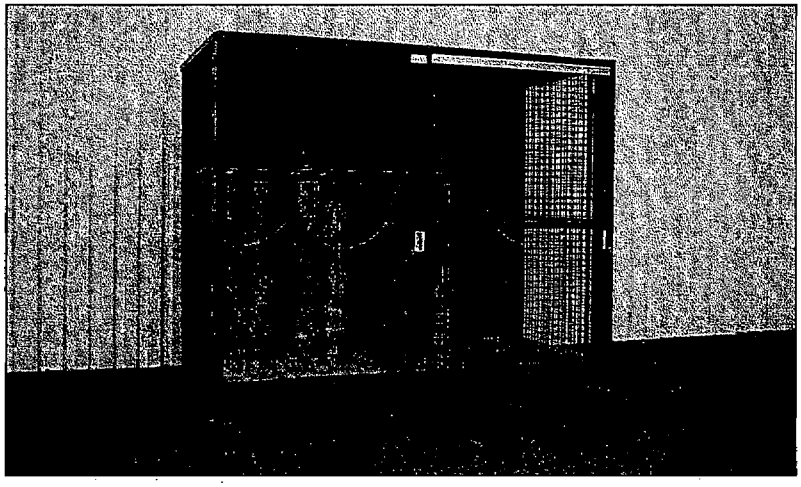
GAS CYLINDER STORAGE STRUCTURES



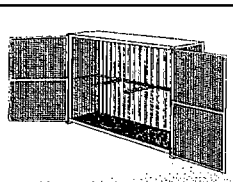
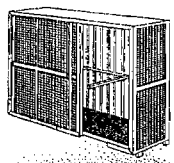
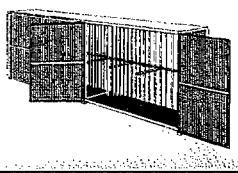
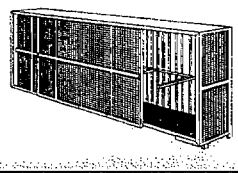
Model L62-3116 without Floor Plate: Stores 96 gas cylinders.



Model L62-3113 with Floor Plate: Stores 48 gas cylinders.
(Ramp not included in price.)

Heavy Duty, Fully Welded
Gas Cylinder Storage Structures

- *Completely assembled*
- *Lockable doors provide secure storage and prevent unauthorized access.*
- *Available in two styles:*
  Hinged Doors and Sliding Doors
- *Expanded metal sides and doors allow natural ventilation and visual inspection of cylinders*
- *Corrosion resistant coating*
- *Chains are adjustable to secure stored cylinders*
- *Meets OSHA & NFPA regulations*
- *Systems provide two flooring options:*
  Fully Welded Floor Plate
  No Floor Plate - Ground Level
- *Anchor plates for securing structure*

MODELS WITH FLOOR PLATE	L62-3110	L62-3112	L62-3114	L62-3116
Nominal Dimensions L x D (ft)	11' x 5'	11' x 5'	21' x 5'	21' x 5'
Nominal Height (ft)	9'	9'	9'	9'
Door Style	Hinged	Sliding	Hinged	Sliding
Storage Capacity (Gas Cylinders)	48	48	96	96
Price	**$5615.00**	**$6048.00**	**$8986.00**	**$9677.00**

MODELS WITHOUT FLOOR PLATE	L62-3110	L62-3112	L62-3114	L62-3116
Price	**$4536.00**	**$4969.00**	**$7258.00**	**$7949.00**

P&D INNOVATIONS 3

Custom Designs

Beyond providing a vast assortment of standard products, P&D provides its customers with the opportunity of partnering with a company capable of designing and manufacturing products tailor-made to fit specific customer requirements.

In-house Design/Manufacturing

As experts in our field, we oversee all product development. When working with P&D, you are guaranteed to receive high quality products manufactured in our facility.

P&D's in-house design and manufacturing:

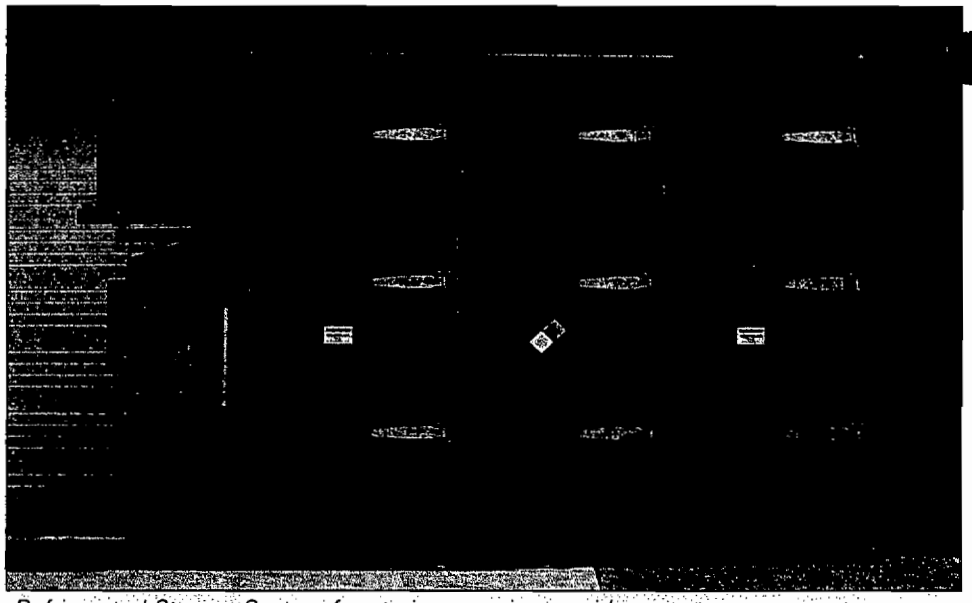
- *Assures adherence to the original concept*
- *Ensures timely completion of systems*
- *Aids in compliance with the relevant regulations*

Your Partner In HazMat Storage Systems

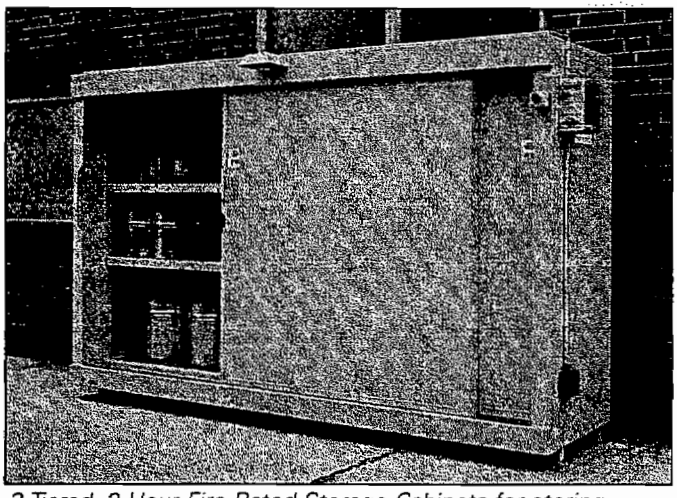
- *Our Engineering & Sales Departments work with you to define your storage needs*
- *Know-how from P&D assures you of a System with years of experience to back it up*
- *As your Partner, we build Your System rather than simply selling you Ours!*

Custom Systems Built to Order

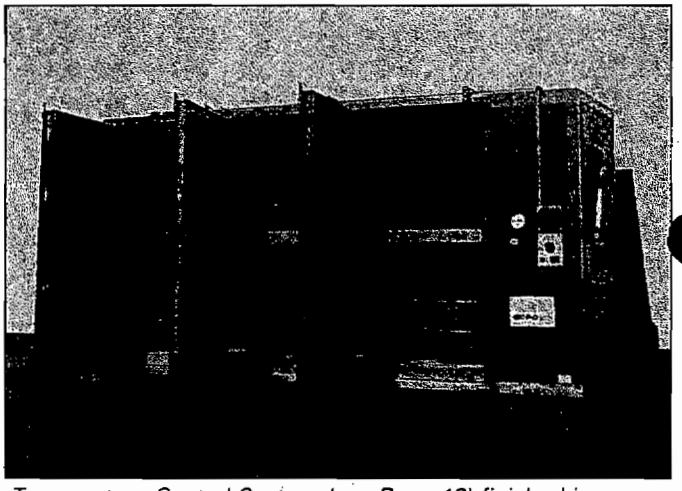
When an existing, pre-engineered structure is not the answer, a system can be customized to fit individual requirements. P&D's Sales and Engineering Staff will consult one-on-one to design and manufacture "One of a Kind" systems. With over a decade of experience and expertise behind P&D, special designs and unique applications, are a "Standard" part of our business.



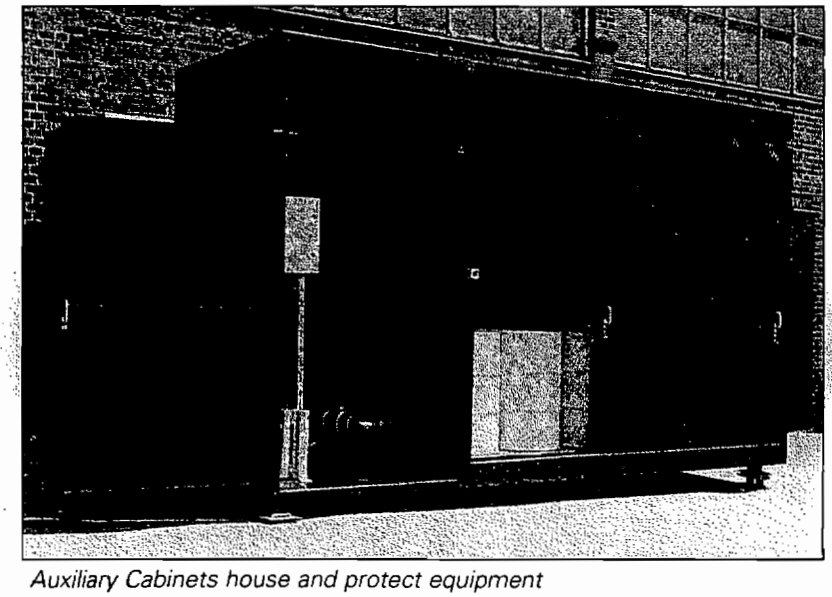
Refrigerated Storage System for storing organic peroxides



3-Tiered, 2 Hour Fire Rated Storage Cabinets for storing 5-gallon and smaller containers



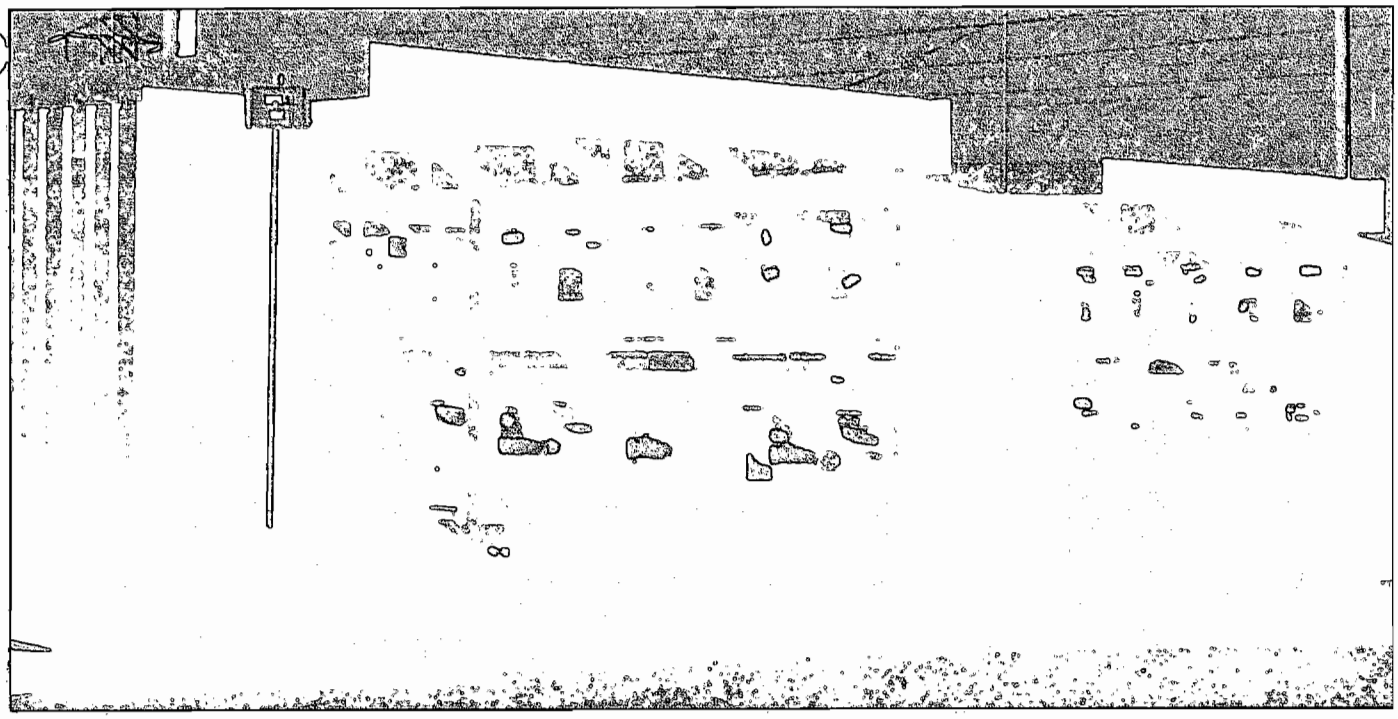
Temperature Control System (see Page 43) finished in stainless steel for storing corrosive chemicals



Auxiliary Cabinets house and protect equipment

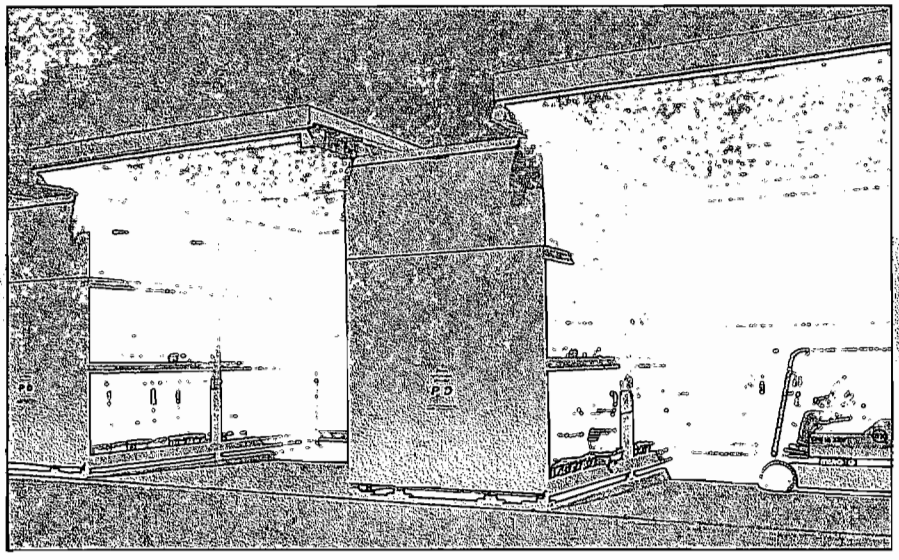
Typical Applications:

- *Waste Collection & Household Hazardous Waste Stations*
- *Dispensing & Mixing Stations*
- *Battery Storage Areas*
- *Transformer Repair Stations*
- *Auxiliary Enclosures for Pumping & Valving*
- *Special Sizes and Dimensions quoted upon request!*



Linking P&D's pre-fabricated Enclosed, Storage Systems with the structured Polycarbonate Roof Decking creates an attractive storage facility yielding unlimited expandability and relocatability. Systems are easily installed and provide an economical and environmentally-safe dedicated chemical storage area for unlimited quantities of drums or IBC's. Uniquely designed by P&D for the storage and dispensing of HazMat chemicals, Warehouse Systems provide easier access to multiple storage units and create a virtual "HazMat Storage Warehouse". And, unlike permanent warehouses, these systems can be relocated as needs change.

- *Polycarbonate roof decking allows 75 - 80% natural sunlight through to illuminate the interior access area*
- *Standard canopy widths: 13' and 20'*
- *Pre-engineered modules*
- *Relocatable and expandable storage capacities for future growth and flexibility*
- *Polycarbonate roof decking is sloped to prevent pooling of rain water*
- *Equipped with gutters*
- *Meets requirements for Federal, State and Local authorities*
- *Unlimited drum or IBC storage capacities*
- *Easy step-by-step installation*



Options:

- *Backing Wall to seal rear of Warehouse System*
- *Hinged or Sliding Entrance Doors; lockable doors of heavy gauge steel construction*

Systems to use with the Warehouse System:

- *Enclosed Storage Systems for Drums and IBCs (Pages 32 - 34)*
- *Horizontal Storage Systems for Drums (Page 35)*
- *Modular Spill Decking (Page 9)*
- *Gas Cylinder Storage Structures (Page 39)*
- *Flammable Storage Systems (Page 36)*

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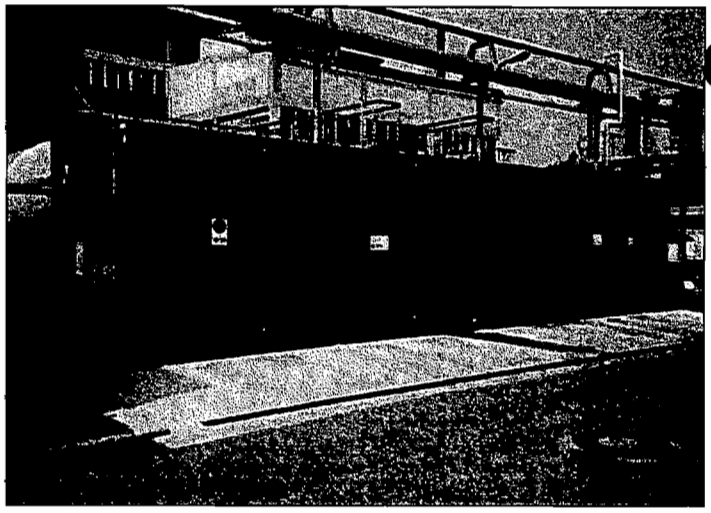
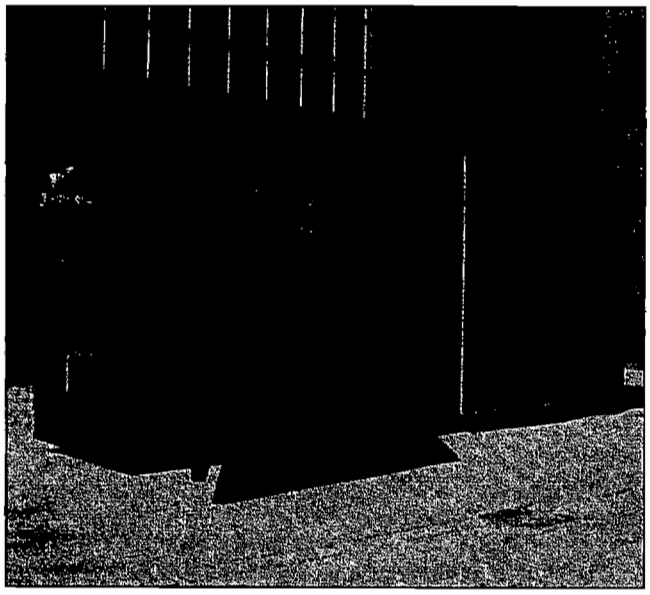
Temperature Control Systems

Temperature Control Systems offer flexible, thermostatically controlled environs for maintaining constant temperatures, preparing materials for production processes, or protecting materials from freezing or overheating. Constructed with fully insulated walls and doors, systems are based on standard designs found on pages 31 - 35.

To maintain internal temperatures, hinged doors are provided with perimeter gasketing and multi-point latching locks. These indoor/outdoor systems are equipped with UL listed options and can be specified with a variety of insulation levels.





Cooling Systems

When overheating of stored chemicals is a concern, Cooling Systems are designed for maintaining cooler, stabilized "room-temperature" and humidity levels.

Chiller Systems

For production purposes and/or storage requirements, many chemicals must be refrigerated or stored at lower temperatures than the conventional systems can provide. Chiller Systems are designed to cool and maintain materials below "room-temperature" ranges.

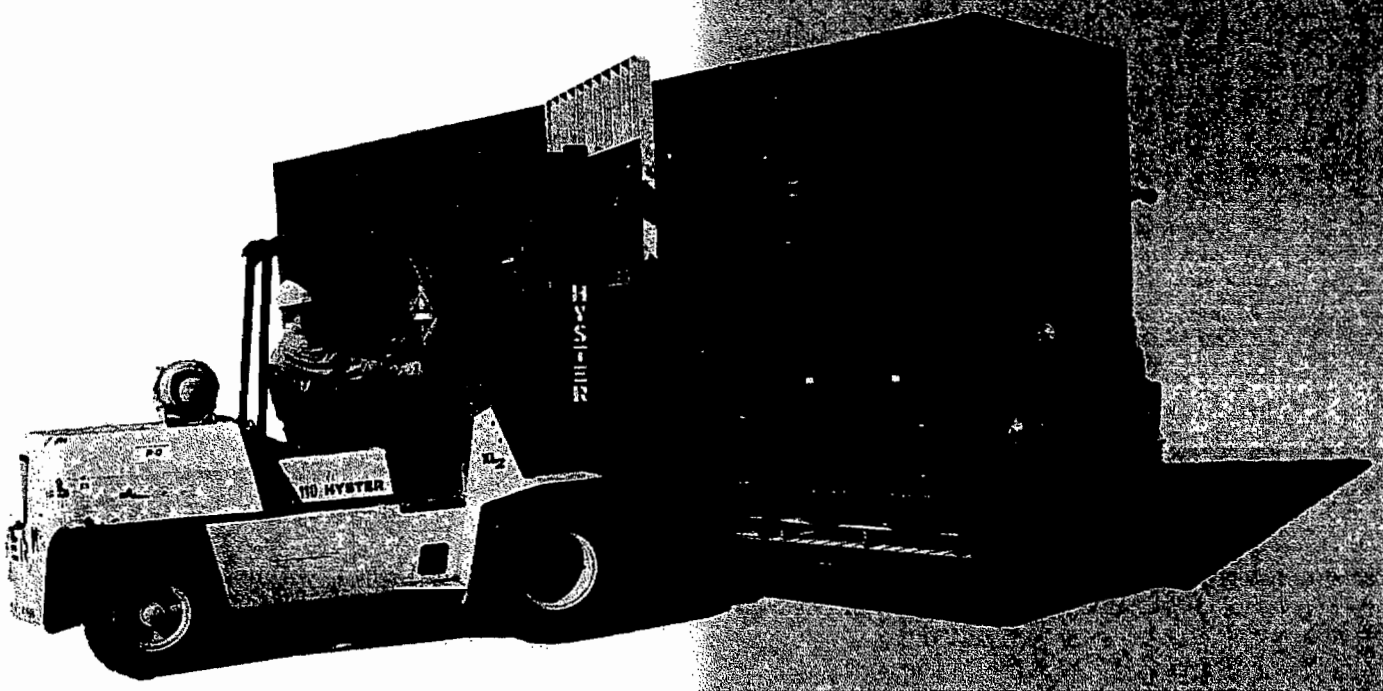
Frost-Free Systems

When exposure to cold conditions is damaging to materials, electric convection, Frost-Free Systems offer low-heat freeze protection.

Heat Process Systems

Many production processes require materials to be pre-heated or stored at higher, specific temperatures than can be attained by Frost-Free Systems. Heat Process Systems are designed for heating, melting, or temperature stabilization of stored chemicals. These systems are built for either electric or steam heat.

FLAMMABLE STORAGE SYSTEMS



P&D Products provide:

- *Efficiency:* *P&D designs allow for convenient access to materials stored. Containment of leaks and spills makes clean up easy.*
- *Durability:* *Our designs have proven themselves through years of use in harsh industrial environments.*
- *Risk Abatement:* *P&D's products aid in compliance with regulations, thus easing the effects of audits and safety inspections.*
- *Custom Designs:* *When standard products do not completely fulfill customer requirements, we offer custom and modified designs tailored to meet your specific needs.*

P&D®

P&D Solutions Corp.

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Fax: 5731 753-199

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P&D Eco-Systemes
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Fax: 232 464 912

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P&D Italia
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I-16122 Genova
Phone: 10 815 127
Fax: 10 881 40

Netherlands
P&D Eco-Systems B.V.
Tuinderij 15
NL-2451 GG Leimuiden
Phone: 172 506 466
Fax: 172 506 189

VISA MasterCard AMERICAN EXPRESS

Visa/MasterCard/American Express Accepted
Items available on GSA

APPENDIX D

CHEMICAL DYE MATERIAL SAFETY DATA SHEET

Material Safety Data Sheet
(United States + Canada)

LIQUID POWDER TRACING DYE

N/A = Not Applicable (Does Not Apply)

HMIS RATING	
HEALTH	0
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	A

Section I - Identification

COMPANY NAME	Norlab Inc
EMERGENCY PHONE	1-800-247-9422
EMERGENCY FAX	1-216-282-5498
EFFECTIVE DATE	03/10/96
REVISED DATE	01/31/97

	YELLOWGREEN	RED	BLUE	VIOLET	ORANGE
CHEMICAL NAME	Acid Yellow 73	Rhodamine WT Liquid 20%	Acid Blue 9	Mixture	Eosin Y
PHYSICAL STATE	aqueous solution	aqueous solution	aqueous solution	aqueous solution	aqueous solution
CHEMICAL FAMILY	Xanthene	Xanthene	Triphenlmethane	Triphenlmethane	Xanthene
CAS NUMBER	518-47-8	1310-73-2	2650-18-2	4129-84-4	17372-87-1
HAZARDOUS CLASS	N/A	N/A	N/A	N/A	N/A
RQ NUMBER	N/A	N/A	N/A	N/A	N/A
UN NUMBER	N/A	N/A	N/A	N/A	N/A
NA NUMBER	N/A	N/A	N/A	N/A	N/A
US DOT SHIP NAME	Coal Tar Stuff	Coal Tar Stuff	Coal Tar Stuff	Coal Tar Stuff	Coal Tar Stuff
PACKAGING SIZE	Various	Various	Various	Various	Various

Section II - Hazardous Ingredients

NONE as per Part 29 CFR 1910.1200
ALL INGREDIENTS LISTED WITH TSCA

Section III - Physical State

	YELLOWGREEN	RED	BLUE	VIOLET	ORANGE
BOILING POINT (F)	N/A	N/A	N/A	N/A	N/A
FREEZING POINT (F)	30 F	30 F	30 F	30 F	30 F
VOLATILITY/VOLUME %	N/A	N/A	N/A	N/A	N/A
MELTING POINT	N/A	N/A	N/A	N/A	N/A
VAPOR PRESSURE (mm Hg)	N/A	N/A	N/A	N/A	N/A
SOLUBILITY IN H2O	100%	100%	100%	100%	100%
APPEARANCE	BROWN	DARK RED	DARK BLUE	DARK PURPLE	DARK ORANGE
ODOR	N/A	N/A	N/A	N/A	N/A
SPECIFIC GRAVITY (H20=1)	Approximately 1	Approximately 1	Approximately 1	Approximately 1	Approximately 1
EVAPORATION RATE	N/A	N/A	N/A	N/A	N/A

FLA[illegible]N	
LOWE[illegible]AME LIMIT	N/A
HIGHER FLAME LIMIT	N/A
EXTINGUISH MEDIA	N/A
FOR FIRE	N/A

Section V - Health Hazard Data

THRESHOLD LIMIT VALUE	Ingestion in rats LD 50>5,800 mg/kg
OVER EXPOSURE EFFECTS	Contact with eyes may result in severe eye irritation Contact with skin may result in irritation Ingestion may result in gastric disturbances
FIRST AID PROCEDURES	Flush eyes with flowing water at least 15 minutes. If irritation develops, consult a physician. Wash affected skin areas with soap and water. If irritation develops, consult a physician. Remove and launder contaminated clothes before reuse. If swallowed, dilute with water and induce vomiting. ***NEVER GIVE FLUIDS OR INDUCE VOMITING, IF PATIENT IS UNCONSCIOUS OR HAS CONVULSIONS***

Section VI - Reactivity Data

CHEMICAL STABILITY	STABLE
CONDITIONS TO AVOID	N/A
INCOMPATIBLE MATERIALS	N/A
DECOMPOSITION PRODUCTS	CARBON MONOXIDE, CARBON MONOXIDE, AND OXIDES OF NITROGEN
HAZARDOUS POLYMERIZATION	DOES NOT OCCUR
POLYMERIZATION TO AVOID	N/A

Section VII - Sill or Leak Procedure

FOR SPILL	Spills should be contained and placed in suitable containers.
WASTE DISPOSAL METHOD	Dispose in accordance with local regulations.

Section VIII - Special Protection

RESPIRATORY PROTECTION	N/A
VENTILATION	N/A
PROTECTIVE GLOVES	To Prevent Skin Contact
EYE PROTECTION	Goggles
OTHER PROTECTIVE EQUIPMENT	Eye wash fountains should be easily accessible
HANDLING + STORAGE	Keep container closed, keep container from freezing, and keep out of reach of children.

Section IX - Special Precautions

N/A

Foot Notes:

APPENDIX E

FIELD NOTES

QST ENVIRONMENTAL
3545 Howard Way, 2nd Floor (714) 426-9000
Costa Mesa, CA 92626 Fax (714) 426-9027

Daily Field Observation Report

Project Name: US Army Reserve Date: 12/8/98 Page 1 of ___
Project Number: 64-97-1756 QST Representative: W.A Kelly / ERCA-San
Task Number: 1500 Client Representative: Frank Williams
Client: Shyamla Job Location: Long Beach
Area Worked: Truck Wash Rack & Sewer Lines
Equipment: Generator - 55 Gal Dye - Pumps & Hoses
Rotatape Camera - Buckets For Decon, Extension Cords
Yardage: Load & unLoad Equipment to Warehouse
Visitors:

Remarks:

7:30 Load Equipment @ Warehouse
Am Leave For Site
9:30 Arrive on Site No one to let us in until 9 Am - Located Wash Rack & opened Separator - Large 5 Stage Separator Located & open Sewer Lines & Storm Drains, Set up Equipment - Generator Extension Cords Pumps & Dye Solution - Start Pumping Dye Solution into Truck Wash Grate - observed Dye in Stage 1 of 5 Stage Separator - It took 1 Hour For Dye to work its way to Stage 5 of the Separator. In 10 min I observed Dye at the 1st Sewer Connection and No Flow to the Storm Drain - Proving Separation - 30 min later I observed the Dye at the 2nd Sewer Connection Approx 1 Hr later the Dye was observed @ the 3rd Sewer Connection and Left the Property to the Main Street Drain - It was impossible to observe in the Street Due To Heavy Traffic and the Distance of about 75' to the Main in the Street the Dye would mix with Heavy Flowing Street and not be seen. - After Verifying with the Dye Test - the Wash Rack Connection to the Sewer and Separation from the Storm Drain - We cleaned up the Site Loaded Equipment and Returned to the Warehouse
2:30 180 Complete 6 Hr Charged To the Job

Signature: William A. Kelly

APPENDIX F

COPY OF WASTEWATER DISCHARGE REGULATIONS AND STORM WATER POLICY

COPIES OF WASTEWATER DISCHARGE REGULATIONS

TABLE OF CONTENTS

1. INTRODUCTION

The Sanitation Districts of Los Angeles County (Districts) are a group of special districts serving the wastewater and solid waste management needs of over four million people and 8,500 industrial users in Los Angeles County. The Districts were formed under the County Sanitation District Act, passed in 1923 by the California State Legislature. This Act provides for the formation of sewerage authorities based not on political boundaries but rather on the geographic boundaries of the waste disposal problems to be solved.

The agency is currently made up of 27 separate Sanitation Districts, serving all or parts of more than 80 cities and unincorporated areas within Los Angeles County. Although each District has a separate Board of Directors consisting of the presiding officers of the local jurisdictions within the District, all 27 Districts work cooperatively under the Joint Administration Agreement. This Agreement provides for a single, centralized administrative organization to coordinate the Districts' affairs.

The Districts currently own and operate eleven wastewater treatment plants which handle over 500 million gallons per day (mgd) of wastewater. Treated effluents from these facilities are either discharged to the ocean, surface waters or land, or are reused for applications such as landscape irrigation, groundwater recharge, and industrial processing. In addition to the treatment plants, the Districts operate and maintain over 1,200 miles of trunk sewers and 50 pumping plants for conveyance of wastewater.

The Districts adopted a Wastewater Ordinance effective April 1, 1972, as amended on July 1, 1980, July 1, 1983 and November 1, 1989, to protect and finance the operation of the Districts' wastewater conveyance, treatment, and disposal facilities. Individual Districts also adopted Connection Fee Ordinances in 1981 (which were amended in 1984, 1990 and in 1992). Companies that discharge industrial wastewater to the sewerage system are governed by both the Wastewater Ordinance and the Connection Fee Ordinance for the District in which the discharge is located. These legal mechanisms establish the Districts' Industrial Wastewater Discharge Permit, Connection Fee, and Surcharge Programs. The Industrial Wastewater Discharge Permit Program allows for the regulation of industrial wastewater dischargers to protect the public health, environment, and the public sewerage system. The Surcharge Program requires all industrial companies discharging to the Districts' sewerage system to pay their fair share of the wastewater treatment and disposal costs. The Connection Fee Program requires all new users of the Districts' sewerage system, as well as existing users that significantly increase the quantity or strength of their wastewater discharge, to pay their fair share of the costs for providing additional conveyance, treatment, and disposal facilities.

1.1 Industrial Wastewater Discharge Permit Program

The Wastewater Ordinance requires any business that desires to discharge industrial wastewater to the Districts' sewerage system to first obtain an Industrial Wastewater Discharge Permit. The permit program provides a means for the Districts to protect sewerage facilities and personnel, the public and the environment through the regulation of industrial wastewater dischargers. Industrial wastewater is defined as all wastewater from any manufacturing, processing, institutional, commercial, or agricultural operation, or any operation where the wastewater discharged includes significant quantities of waste of non-human origin.

1.2 Companies Exempt From Obtaining an Industrial Wastewater Discharge Permit

Businesses that discharge only domestic wastewaters (wastewaters from restrooms, drinking fountains, showers, or air conditioners used for human comfort), or businesses that are determined to have an insignificant impact on the Districts' facilities (listed on page 3 as exempt companies), may not be required to obtain an Industrial Wastewater Discharge Permit. However, exemption from obtaining a Permit does not relieve a company of the responsibility to comply with conditions regulating prohibited and restricted waste discharges, or rainwater diversion requirements specified in the Districts' Wastewater Ordinance. Businesses with no other industrial discharge that utilize a rainwater switch to divert rainwater from the sanitary sewer to the storm drain may be required to obtain a permit.

Exempt Companies

The criteria listed below are to be used in determining if a facility is exempt from obtaining an Industrial Wastewater Discharge Permit. This determination is to be made only by Districts' personnel. Facilities determined by the Districts to have a potential adverse impact on the sewerage system may be required to obtain a permit.

1. All restaurants and hotels
2. Small food processing establishments with wastewater flows less than 500 gallons per day
   Exception: facilities discharging excessive oil and grease, excessive dissolved sulfides or high-strength waste
3. All retail grocery stores
   Exception: centralized food processing facilities for distribution to other grocery stores
4. All 1-Hour photo shops and small photo processing facilities
   Exception: centralized film processing facilities
5. School and commercial laboratories
6. Medical and professional buildings
   Exception: hospitals with overnight beds
7. All pet shops, animal kennels, animal hospitals and animal shelters
8. Warehouses
9. Auto dealers and auto repair shops
   Exception: radiator shops
10. Car washes with flows less than six million gallons per year
11. All automotive service stations
12. Recreational vehicle dump stations
13. Other companies may be exempt as determined on a case by case basis.

Exemption from the Districts' Industrial Wastewater Discharge Permit does not exempt a company from permit requirements imposed by the Los Angeles County Department of Public Works or the city in which the company is located (referred to as the local agency). The local agency should be contacted to determine if a permit is required. Building permits, plumbing permits, and sewer connection permits do not constitute Industrial Wastewater Discharge Permits and must be obtained separately. In fact, for construction of new industrial facilities, building permits cannot be obtained without first obtaining a Districts' Industrial Wastewater Discharge Permit.

A separate permit application must be filed for each connection to the public sewer that carries, or will carry, industrial wastewater. Whenever feasible, as determined by the Districts, consolidation of existing multiple connections from each individual discharger will be required. In general, the policy for existing industrial facilities is that additional permits for new sewer connections will not be granted; new wastewater discharges should be accommodated by obtaining a revised permit for the existing connection. For facilities which involve new construction, only one industrial wastewater connection to the public sewer will be allowed.

Industrial Wastewater Discharge Permits are not transferable from one company or person to another. Whenever a change in ownership of a business occurs, a new permit signed by a new company official must be obtained.

Industrial Waste Discharge Permits have a duration of active approval that does not exceed five (5) years. Each permit will have a statement of duration or a specific date of expiration associated with the approval and issuance. In accordance with Federal regulations, the duration may not exceed five (5) years. A permit review/renewal process will be initiated approximately six (6) months prior to the expiration date to allow the permittee to prepare a formal permit application if necessary.

Specific step-by-step instructions for obtaining an Industrial Wastewater Discharge Permit are included in **section 3** of this booklet and all the necessary forms are included in **Appendix 6.1**. Additional information and forms can be obtained by sending the "Request for Information and Forms" postcard at the back of this booklet.

1.3 Surcharge Program

State and Federal programs require that industrial companies discharging to publicly owned sewerage systems must pay their fair share of wastewater treatment costs. The Wastewater Ordinance provides a method whereby industrial companies calculate, based upon their own measurements, annual wastewater surcharge payments. Surcharge rates are determined for each fiscal year based upon the Districts' actual treatment costs.

In general, all industrial companies having a wastewater discharge to the sewerage system of over one million gallons during a fiscal year (July 1 to June 30) must file a Sanitation Districts' Wastewater Treatment Surcharge Statement. Companies having discharged under one million gallons of wastewater to the sewer during a fiscal year are considered to have discharged an insignificant quantity of wastewater and must file an Exemption Statement. All companies discharging between one and six million gallons per year of wastewater may file either a "Short Form" or "Long Form" surcharge statement. Companies which have high strength wastewater and discharge less than six million gallons per year may be required to file a "Long Form" surcharge statement. Companies which discharge more than six million gallons annually are required to file a "Long Form" surcharge statement. Each company which occupies one parcel of land, or multiple contiguous parcels of land, must file only one Surcharge Statement or one Exemption Statement, regardless of the number of discharge outlets that the company has in such parcel(s). The total wastewater flow volume, not the individual wastewater flow volume of multiple discharge outlets, should be used as the criteria for determining the applicability of filing an Exemption Statement (for under one million gallons per year) or a "Short Form" surcharge statement (for under six million gallons per year). "Long Form" dischargers are required to prepay the estimated surcharge in quarterly payments. The Surcharge Statement is due August 15 following the end of the fiscal year for both "Long Form" and "Short Form" companies.

1.4 Connection Fee Program

As of December 15, 1981, a Districts-wide Connection Fee Program was implemented to provide funds for future capital expenditures. This program requires all new users of the sewerage system, as well as existing users who expand their wastewater discharge by more than 25 percent, to pay a connection fee to the Districts based upon the quantity and the strength of their wastewater discharge. This connection fee applies to residential, commercial, and industrial discharges. For new facilities, the connection fee is to be paid prior to the time the facility is actually connected to the sewer or, in the case of expansions for existing facilities, at the time of expansion of the wastewater discharge. The initial fee purchases a baseline capacity entitlement for the permitted industrial connection. Companies that expand their wastewater discharge, such that the capacity is 25 percent greater than the baseline capacity, will be required to pay a connection fee for the increased discharge, thereby establishing a new baseline capacity entitlement.

For users obtaining permits at industrial sites within the Districts' service area, the baseline capacity usually has been established by the previous industrial user. Baseline entitlements remain with the site regardless of change of ownership. The only exception occurs when the original owner of the entitlement relocates to another site within the service area and is allowed to apply the capacity entitlement to the new site under the relocation credit provision of the Connection Fee Ordinance. Therefore, a new owner may incur a connection fee for an existing facility if the baseline capacity entitlement is not sufficient for the new production or has been relocated.

1.5 Self Monitoring Program

As a condition for approval of an Industrial Wastewater Discharge Permit, an applicant may be subject to participation in the Districts' Self Monitoring Program. This Program requires a company to furnish chemical analyses of its industrial wastewater to the Districts on a regular basis. The type and frequency of tests to be performed are determined on a case-by-case basis depending upon the quality and quantity of the industrial discharge and are included as requirements in the Permit.

2. FEDERAL, STATE AND LOCAL REGULATIONS

2.1 Federal Effluent Regulations

Since June 26, 1978, the Environmental Protection Agency (EPA) has developed regulations for pretreatment of industrial wastes discharged to publicly owned treatment works as required by the Clean Water Act. EPA has developed regulations for over twenty industrial categories which are based on the wastewater effluent quality that can be achieved using established treatment technologies. Specific regulations and effluent limitations are set for each industrial category. The following categories are currently regulated; however, the EPA may add or delete categories in the future. The Districts are required by law to administer EPA's pretreatment program. Further information regarding a specific category's regulations can be obtained by contacting the Districts' Industrial Waste Section.

EPA Categorical Companies

1. Aluminum Forming (40 CFR 467): EPA defines aluminum forming as "the deformation of aluminum or aluminum alloys into specific shapes by hot or cold working such as rolling, extrusion, forging, and drawing." Surface treatment and heat treatment of aluminum parts that are formed at the same plant site are subject to the Aluminum Forming Regulations and are not covered by the Electroplating and Metal Finishing regulations (40 CFR 413 & 433). Casting of aluminum that is subsequently formed at the same plant site is also subject to the Aluminum Forming Regulations. Discharge from the forming operation is not required to be subject to this regulation.
2. Battery Manufacturing (40 CFR 461): Battery manufacturing encompasses the production of modular electric power sources where all or part of the fuel is contained within the unit and electric power is generated directly from a chemical reaction rather than indirectly through a heat cycle engine.
3. Carbon Black Manufacturing (40 CFR 458): This category consists of facilities which manufacture carbon black by the furnace, thermal, channel or lamp processes. Only facilities which have been constructed or significantly modified since May 18, 1976 are regulated.
4. Coil Coating (40 CFR 465): EPA regulations state that "Coil coating consists of that sequence or combination of steps or operations which clean, surface or conversion coat, and apply an organic (paint) coating to a long thin strip or coil of metal."
5. Can Making (40 CFR 465): This classification is a subcategory of coil coating and has been defined to be "the process or processes used to manufacture a can from a base metal, including aluminum and steel." This category applies to seamless cans only.
6. Copper Forming (40 CFR 468): This category regulates discharges resulting from the manufacture of formed copper and copper alloy products. The forming operations covered are hot rolling, cold rolling, drawing, extrusion, and forging. Ancillary operations which include surface treatment (pickling, tumbling, burnishing, alkaline cleaning, and surface milling), heat treatment, hydrotesting, sawing, and surface coating with molten metal are also covered by this regulation. Discharge from the forming operation is not required to be subject to this regulation.
7. Electrical and Electronic Components (40 CFR 469): This category consists of all operations associated with the manufacturing of semiconductors, electronic crystals, cathode ray tubes, and luminescent materials except for sputtering, electroplating, and vapor plating operations.
8. Electroplating (40 CFR 413): This category consists of electroplating, anodizing, conversion coating, electroless plating, chemical etching and milling, and the manufacturing of printed circuit boards. This category applies to existing job shops only.
9. Fertilizer Manufacturing (40 CFR 418): This category applies to discharges from the manufacture of sulfuric acid, nitric acid (in concentrations up to 68%), ammonium sulfate by the synthetic process or by coke oven byproduct recovery, and mixed and blend fertilizers. It is only applicable to sulfuric and nitric acid manufacturing processes that have been constructed or significantly modified since December 7, 1973 and ammonium sulfate and mixed and blend fertilizer manufacturing processes that have been constructed or significantly modified since October 7, 1974.

10. Glass Manufacturing (40 CFR 426): This category consists of manufacturers of glass containers, television picture tubes, incandescent lamp envelopes, and hand pressed and blown glass. Only facilities which have been constructed or significantly modified since August 21, 1974 are regulated.
11. Ink Formulating (40 CFR 447): This category applies to discharges resulting from the formulation of oil-base ink where the tank washing system uses solvents. It is only applicable to processes that have been constructed or significantly modified since February 26, 1975.
12. Inorganic Chemicals Manufacturing (40 CFR 415): This category includes facilities involved in the manufacture of basic inorganic chemicals including alkalies and chlorine, industrial gases, and inorganic pigments.
13. Iron and Steel (40 CFR 420): This category covers steel works, blast furnaces (including coke ovens), rolling mills, electrometallurgical products, steel wire drawing and facilities which produce steel nails and spikes, and steel pipes and tubes. This category does not include coil coating operations.
14. Leather Tanning and Finishing (40 CFR 425): This category consists of the tanning, currying, and finishing of hides and skins into leather.
15. Metal Finishing (40 CFR 433): This category consists of electroplating, anodizing, conversion coating, electroless plating, chemical etching and milling, and the manufacturing of printed circuit boards. This category applies to captive shops (owns 50 percent or more of the surface area finished), and all new source electroplating and metal finishing operations (those which began construction after August 31, 1982).
16. Metal Molding and Casting (40 CFR 464): This category consists of the pouring or injection of molten metal into a mold with the cavity of the mold representing, within close tolerances, the dimensions of the final product. This category includes aluminum, copper, ferrous, and zinc casting.
17. Nonferrous Metals Manufacturing (40 CFR 421): This category consists of plants that process nonferrous ore concentrates (primary) and scrap metals (secondary) to recover and increase the metal purity contained in these materials.
18. Nonferrous Metals Forming (40 CFR 471): This category consists of the deformation of a metal (other than iron) or metal alloy (other than iron as the major component by weight) into specific shapes by hot or cold working, drawing, cladding and tube reducing.
19. Organic Chemicals, Plastics, and Synthetic Fibers (40 CFR 414): This category consists of facilities which manufacture organic chemicals, plastics, or synthetic fibers. Companies which simply formulate or package these materials are excluded.
20. Paint Formulating (40 CFR 446): This category applies to discharges resulting from the formulation of oil-base paint where the tank cleaning is performed using solvents. It is only applicable to processes that have been constructed or significantly modified since February 26, 1975.
21. Paving and Roofing Materials (40 CFR 443): This category consists of producers of asphalt paving and roofing emulsions, asphalt concrete, asphalt roofing materials, and linoleum and asphalt felt floor coverings. It is only applicable to facilities that have been constructed or significantly modified since January 10, 1975.
22. Petroleum Refining (40 CFR 419): This category includes operations which produce gasoline, kerosene, distillate fuel oils, residual fuel oils and lubricants, through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes.
23. Pharmaceutical Manufacturing (40 CFR 439): This category includes pharmaceutical manufacturing facilities which may use fermentation, extraction, chemical synthesis, mixing/compounding and formulation, or may conduct research.
24. Porcelain Enameling (40 CFR 466): EPA defines porcelain enameling as "that sequence or combination of steps or operations which prepare the metal surface and apply a porcelain or fused silicate coating to the metal basis material."
25. Pulp, Paper, and Paperboard and the Builders' Paper and Board Mills (40 CFR 430 and 431): This category includes pulp mills, paper mills, paperboard mills, and building paper and building board mills.

26. Rubber Manufacturing (40 CFR 428): This category consists of manufacturers that reclaim rubber or mold, extrude, or fabricate rubber products, including latex products. It is only applicable to facilities that have been constructed or significantly modified since August 23, 1974.

27. Soap and Detergent Manufacturing (40 CFR 417): This category consists of facilities which blend or package liquid detergents or manufacture dry detergents by spray drying, drum drying, or dry blending. Only facilities which have been constructed or significantly modified since December 26, 1973 are regulated.

28. Steam Electric Power Generation (40 CFR 423): This category is composed of facilities that are engaged in the generation of electricity for distribution and sale, and use either fossil-type fuel (coal, oil, or gas) or nuclear fuel in conjunction with a thermal cycle that has a steam/water thermodynamic medium.

29. Textile Mills (40 CFR 410): This category applies to the fiber preparation and manufacturing/processing parts of the textile industry.

30. Timber Products (40 CFR 429): This category consists of a diverse group of manufacturing plants whose primary raw material is wood and whose products range from finished products to hardboard and preserved wood.

2.2 Districts' Effluent Limitations

In addition to implementation of EPA limits, the Districts also enforce a set of local limits (Phase I) and Ordinance requirements for all companies discharging to the Districts' sewerage system. These limits are applicable to all wastewater dischargers and may not be exceeded at any time. Stricter limits may be applied for any of the Phase I parameters or additional limits may be set on a case-by-case basis to protect the public or the Districts' sewerage facilities. Examples of additional constituents which may be limited include, but are not restricted to, total dissolved solids (TDS), high pH, thiosulfate, ammonia, benzene, mercaptans, fluoride, surfactants, toxic organics, and oil and grease. Local limits are reviewed on an ongoing basis to determine if revisions are necessary to meet Local, State and Federal regulations. In addition, the Wastewater Ordinance (Section 406) contains a comprehensive list of prohibited wastes which must not be discharged to the Districts' sewerage facilities in any amount. Examples include, but are not limited to, flammable, corrosive, odorous, highly colored, foam-generating, and highly concentrated solid materials.

Sanitation Districts' Phase I Limits

Parameter	Maximum Allowable Concentration at any time, mg/l
Cyanide (Total)	10
Arsenic	3
Cadmium	15
Chromium (Total)	10
Copper	15
Lead	40
Mercury	2
Nickel	12
Silver	5
Zinc	25
*TICH	Essentially None

*Total Identifiable Chlorinated Hydrocarbons include such pesticides as aldrin, dieldrin, chlordane, DDT, endrin, hexachlorocyclohexane, toxaphene and PCBs.

Numerical Requirements Listed in the Districts' Wastewater Ordinance

1. The pH of the wastewater discharged shall not be below 6.0 at any time.
2. The dissolved sulfide concentration of the wastewater shall not exceed 0.1 mg/l at any time.
3. The temperature of the wastewater shall not exceed 140° F at any time, and shall not cause the wastewater influent to a Districts' treatment plant to exceed 104°F.

2.3 Hazardous Materials and Hazardous Wastes Management Requirements

If your facility handles hazardous materials, you may be subjected to Local, State and Federal reporting requirements for hazardous material storage, emergency response, community right-to-know and routine release to the three media of the environment, including sewer discharge. For further information, please contact your local Administrative Agency, which is usually the hazardous materials section of your local fire department.

If your facility generates, stores, treats or disposes of hazardous wastes, you may be subjected to various local, State and federal requirements for the control of hazardous wastes. For more information, please call the Hazardous Materials Control Program of the Los Angeles County Forester and Fire Warden at 213-890-4045. (For facilities in Long Beach, Pasedena and Vernon, please call the hazardous waste section of your local health department.)

Some of the hazardous waste control requirements are as follows:

• If you are a generator of hazardous wastes, you may need to obtain an U.S. EPA Identification number by filing a Notification Form of Hazardous Waste Activity. For a copy of the form, please call the State department of Toxic Substances Control at 916-324-1781. As a generator, you may also be subjected to the requirement for reducing your generation of hazardous wastes under the Hazardous Waste Source Reduction and Management Review Act (SB 14, Roberti). For further information, please contact the regional offices of the Department of Toxic Substances Control at 310-590-4868 (Long Beach) or 818-567-3000 (Burbank) and ask for the duty officer.

If you treat any hazardous wastes, including hazardous wastewater in your industrial wastewater pretreatment system for discharge to the sewer system, you may be required to obtain a Treatment, Storage or Disposal Facility permit from the State Department of Toxic Substances Control. However, there is a simplified procedure called the Permit-By-Rule program, in which you are deemed to have a permit after you have filed a notification form and fulfilled certain standard requirements. For further information, please call the regional offices of the Department of Toxic Substances Control listed above.

• If your wastewater discharge to the sewer can be considered as hazardous waste under federal regulations, you may be required to notify the Districts of this discharge of hazardous waste to the sewer. You can request the Notification Report of the Discharge of Hazardous Wastes form from the Districts by checking the appropriate box on the Information Request Postcard at the end of this booklet. For further information and clarification, please call the Industrial Waste Section of the Districts. (This federal requirement is to help inform a sewer agency that hazardous wastes are being discharged to its system and let individual sewer agency decide if these hazardous waste discharges need be regulated. Federal regulations presently exclude industrial wastewater discharges to a sewer agency for combined domestic and industrial wastewater treatment from being defined as hazardous waste. Please note that this exclusion applies only to the actual wastewater discharge. It does not exclude industrial wastewater from being considered hazardous wastes while they are being collected, stored or treated before discharge to the sewer, nor does it exclude sludge that is generated by industrial wastewater treatment.)

2.4 Waste Minimization

The Districts are requiring a waste minimization plan to be submitted with every new permit or permit revision (see section 3.3, page 19). Conventional waste management activities for industrial users have largely focused on treatment, control and disposal, and to a lesser extent on recycling. EPA and other regulatory agencies have started to reevaluate these activities with the consensus that end-of-pipe pollution controls are not enough. This shift in emphasis is the direct result of the continued release of significant amounts of wastes containing toxic constituents to the air, land and water despite stricter pollution controls and skyrocketing waste management costs. Because of the increasing evidence of the environmental and economic benefits associated with reducing waste at the source rather than managing such waste after it is produced, programs related to waste reduction are underway at the Local, State and Federal levels. Economic benefits realized from source reduction include cost savings from pollution control facilities

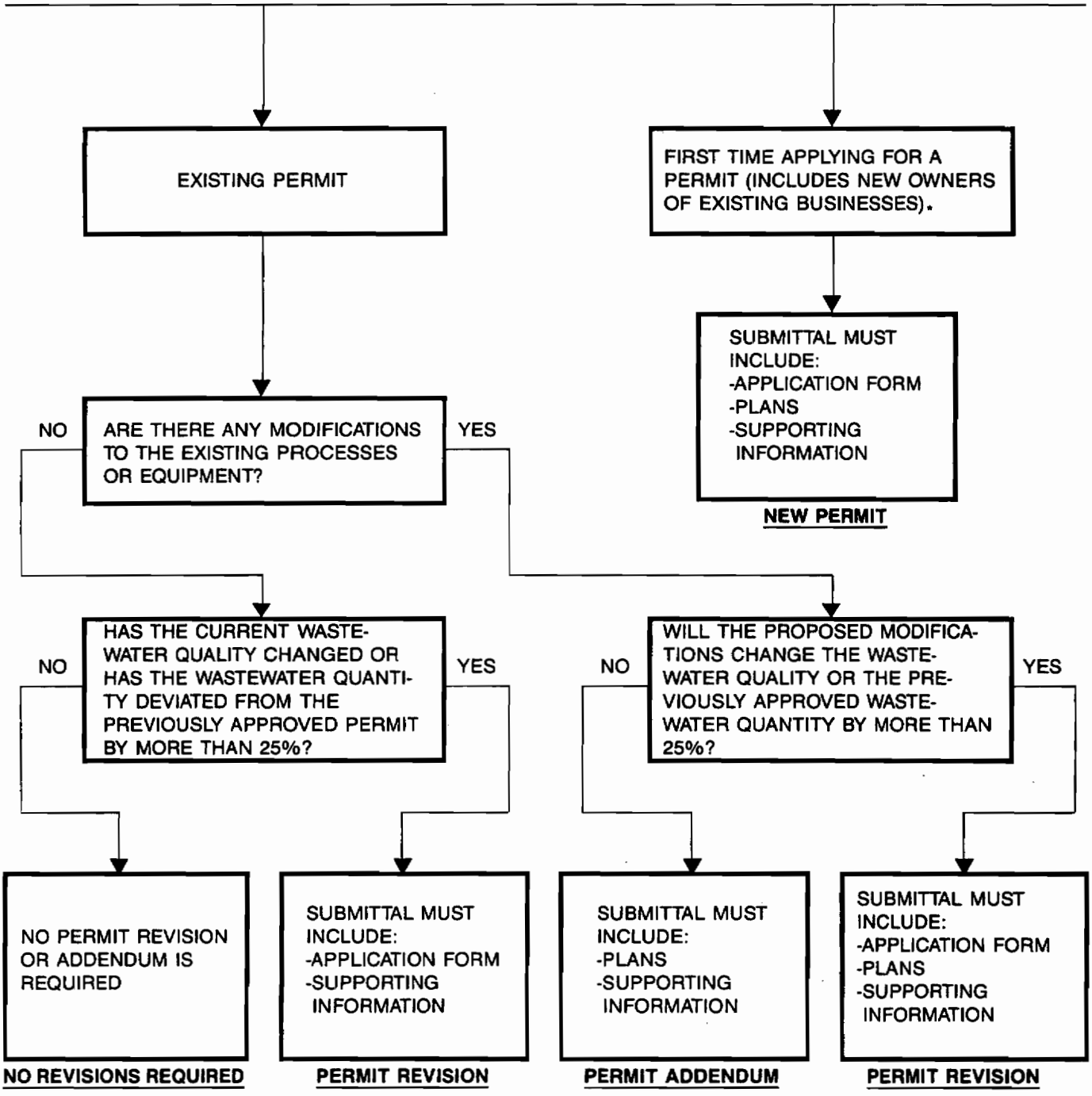
that do not have to be built, reduced operating costs for pollution control facilities, and reduced manufacturing costs and retained sales of products that might otherwise have been taken off the market as environmentally unacceptable. Industrial source reduction can be accomplished through input substitution, product reformulation, process modification, improved housekeeping, and on-site, closed-loop recycling. Additional information regarding waste minimization programs and available source reduction methods can be obtained by submitting the postcard at the end of the booklet, or by contacting the Districts' Industrial Waste Section.

3. INSTRUCTIONS FOR APPLYING FOR AN INDUSTRIAL WASTEWATER DISCHARGE PERMIT

In order for the Districts to properly evaluate and process an Industrial Wastewater Discharge Permit, it is essential that the applicant provide a complete and adequate permit submittal. The instructions that follow provide a list of the items that must be included in the submittal as well as a summary of current guidelines and policies that must be taken into consideration when preparing the submittal. **The complete permit submittal must then be sent to the local agency** (the local city or the Los Angeles County Department of Public Works) for initial processing prior to Districts' review. Contact the applicable local agency for the appropriate permit processing fee that may be required. A listing of the local agencies is presented in Table 1 on page 13 of the booklet, and their addresses are shown in Appendix 6.4. County contract cities are those cities which contract with the Los Angeles Department of Public Works for sewerage services. Companies located within the contract cities or unincorporated areas of the County should send permit submittals to the Los Angeles County Department of Public Works.

The permit submittal can be conceived as being composed of three main parts: 1) Permit Application Form, 2) Plans, and 3) Supporting Information.

TYPES OF INDUSTRIAL WASTEWATER DISCHARGE PERMIT SUBMITTALS



*NOTE: A NEW PERMIT IS REQUIRED FOR A CHANGE IN OWNERSHIP

3.1 Permit Application Form

All first-time applicants must submit a completed permit application form. A company with an existing permit that is proposing modifications which will change the previously approved wastewater discharge by more than 25 percent will be required to apply for a permit revision. A permit revision request must also include a completed permit application form. Proposed modifications which will not change the wastewater quality or the previously approved wastewater quantity by more than 25 percent will be processed as an addendum to the existing permit and will not require a permit application form.

The Permit Application form can be found in **Appendix 6.1** and line-by-line instructions are presented on pages 11 and 12.

Line-by-Line Instructions for Completing the Permit Application Form

Line 1: Sewer Connection Category

Check the appropriate category. Please indicate whether the proposed discharge is to an existing public sewer connection or if a new industrial wastewater connection is required.

Line 2: Company Name

The legal name of the company responsible for the wastewater to be discharged must be indicated on line 2. The contractor, plumber, or consultant must not be listed.

Line 3: Type of Business Entity

On line 3 the appropriate box indicating the type of business entity must be checked. If the applicant is a corporation, the legal name of the corporation, year of incorporation, state of incorporation, and the corporate identification number must be listed. If the applicant is a partnership, indicate the name of the partnership and list the names of the individual partners. If the applicant is a sole proprietor, indicate the name of the sole proprietor and also list the names of all the businesses which the sole proprietor operates.

Lines 4 to 6: Company Address and Point of Discharge

Provide the situs address of the wastewater-producing facility on line 4. The mailing address of the applicant should be provided on line 5. On line 6, specify the point of connection to the public sewer by using the sewer station number, distance from nearest street intersection, or any other means of identification.

Line 7: Length of Occupancy

Indicate the number of years the applicant has been in business at the location indicated on line 4. If the applicant has yet to occupy the facility, please indicate this and continue on to line 8.

Line 8: Property Owner

On line 8 indicate the name of the property owner of the location indicated on line 4. Also list the address and phone number where the property owner can be contacted.

Line 9: Assessors Map Book, Page, and Parcel Number

This number is the property identification number of the facility producing the wastewater. The property identification number is the same as that used by the County Tax Assessor and should be identical to that shown on the annual property tax bill. These identification numbers consist of a four-digit number followed by two three-digit numbers (for example, 8115-004-906).

Line 10: Type of Industry

Give a general description of the type of business the applicant operates. The Federal Standard Industrial Classification (SIC) Number(s) must be provided. This number is obtained from the Federal Standard Industrial Classification Manual, which may be found in the offices of your local city, County of Los Angeles Department of Public Works, or at the Districts' office.

Line 11: Number of Employees

Indicate the total number of full-time and part-time employees.

Lines 12 to 14: Description of Operation

Provide a brief description of the types and quantities of the major raw materials used at the facility and of the products produced on lines 12 and 13. On line 14 give a full and detailed description of all the operations that take place at the facility (especially those that generate the wastewater to be discharged). A more complete and comprehensive description of the raw materials, produced products, and process operations may need to be submitted as additional information in an accompanying letter.

Line 15: Time and Days of Discharge and Number of Shifts Per Day

Indicate the appropriate time, shifts and days of the proposed wastewater discharge. If the time and days of wastewater discharge do not coincide with the working hours, this must be discussed in an accompanying letter.

Line 16: Wastewater Flow Rate

Provide the average industrial wastewater flow rate in gallons per day. For existing facilities, please provide copies of the most recent twelve (12) months of water bills for the facility and complete **Form B** in Appendix 6.1. The water bills will be used to verify the reported flow rate. Companies that have an approved effluent wastewater flow measurement system must provide totalizer readings for the last twelve (12) months and must indicate the totalizer units (e.g., hundreds of gallons). The peak flow rate (in gallons per minute) must also be provided on line 16. This is the rate at which wastewater is discharged to the public sewer during the single highest 30-minute discharge period. Estimates will be acceptable for new facilities only.

Line 17: Constituents of Wastewater Discharge

Give a general description of the materials or chemicals which may be present in the industrial wastewater discharge. For existing facilities, chemical analyses of the wastewater by a State certified or Districts-approved laboratory must be furnished. Such analyses must include values for COD (chemical oxygen demand), SS (suspended solids), pH, and any other chemicals associated with the raw materials used at the facility. New companies which are not yet generating wastewater must submit estimates for these parameters.

Line 18: Industrial Wastewater Contact

Print the name, position, and telephone number of a company official who has working knowledge of the operations producing the wastewater, is responsible for the industrial wastewater discharge, and may be contacted for further information. If someone other than the individual listed on line 18 is to be the contact person for permit processing purposes, such as a contractor, plumber or consultant, the permit processing contact person should be specified in an accompanying letter.

Line 19: Signature

This permit application form must be signed and dated by a company administrative officer such as the president or vice president of the company. The signature of a contractor, plumber, or consultant will not be acceptable.

Lines 20 and 21: Approval Signatures

The local sewering agency (the local city or the Los Angeles County Department of Public Works) must sign and date the permit application before review and approval by the Districts. The signatures of both the local agency and the Districts are required to establish a valid Industrial Wastewater Discharge Permit.

3.2 Plans

All companies applying for an industrial wastewater discharge permit or amending a current permit must submit adequate plans. An exemption from submitting plans may be allowed if the facility has previously had an Industrial Wastewater Discharge Permit and there are adequate and valid plans on file with the Districts. **This can only be allowed if there have been no changes in the facility, process or pretreatment equipment from that depicted on the previously approved plans.**

The plans submitted must have sufficient quality to reproduce clearly. All drawings submitted must have good contrast, clear background and legible labeling. Moreover, the drawings shall have minimum dimensions of 11 inches by 17 inches and maximum dimensions of 30 inches by 42 inches.

The number of sets of plans to be submitted depends on the city where the company is located, as shown on Table 1.

TABLE 1 - Number of Sets of Plans Required

Non-Contract Cities (4 sets of plans unless specified otherwise)

Alhambra	Lynwood
Arcadia	Manhattan Beach
Azusa	Maywood
Baldwin Park	Monrovia
Bell	Montebello
Beverly Hills	Palos Verdes Estates
Bradbury	Pasadena
Claremont	Pomona (5 sets)
Compton	Redondo Beach
Covina	Rolling Hills
Downey	San Gabriel
El Monte	San Marino
El Segundo	Santa Fe Springs (5 sets)
Glendora	Sierra Madre
Hawthorne	Signal Hill (5 sets)
Hermosa Beach	South Gate
Huntington Park	South Pasadena
Industry (5 sets)	Torrance
Inglewood	Vernon
Lancaster	West Covina
Long Beach	Whittier
Los Angeles	

County Contract Cities (6 sets of plans required unless specified otherwise)

Artesia	Lomita
Bellflower	Monterey Park
Bell Gardens	Newhall
Carson	Norwalk
Cerritos	Palmdale
Commerce	Paramount
Cudahy	Pico Rivera
Culver City (7 sets)	Rancho Palos Verdes
Diamond Bar	Rolling Hills Estates
Duarte	Rosemead
Gardena	San Dimas
Hawaiian Gardens	Santa Clarita
Irwindale	Saugus
Lakewood	South El Monte
La Mirada	Temple City
La Puente	Valencia
La Verne	Walnut
Lawndale	West Hollywood (7 sets)

Unincorporated County Areas (6 sets of plans required)

Chino Basin Municipal Water Districts (5 sets of plans required)

A. Required Plans

For companies required to submit plans, the following should be provided:

1. Sewerage Plan.

   The applicant must provide a wastewater sewerage plan, drawn to scale, that shows sewers and associated facilities for the handling of industrial wastewater from the point of origin to the connection to the public sewer. All processes generating wastewater must be identified and all sewers, floor drains, trenches and sinks must be indicated on the plan. The sewerage plan must also show sanitary lines from restrooms, drinking fountains and other nonindustrial wastewater sources. Finally, the plans must show the location and number of incoming water meters in the facility. It is a Districts' requirement that all sanitary lines at a facility must be kept separate from industrial process flows until after the industrial wastewater has passed through all pretreatment facilities, monitoring devices and flow measuring systems. An example of a sewerage plan is presented below in Figure 1.

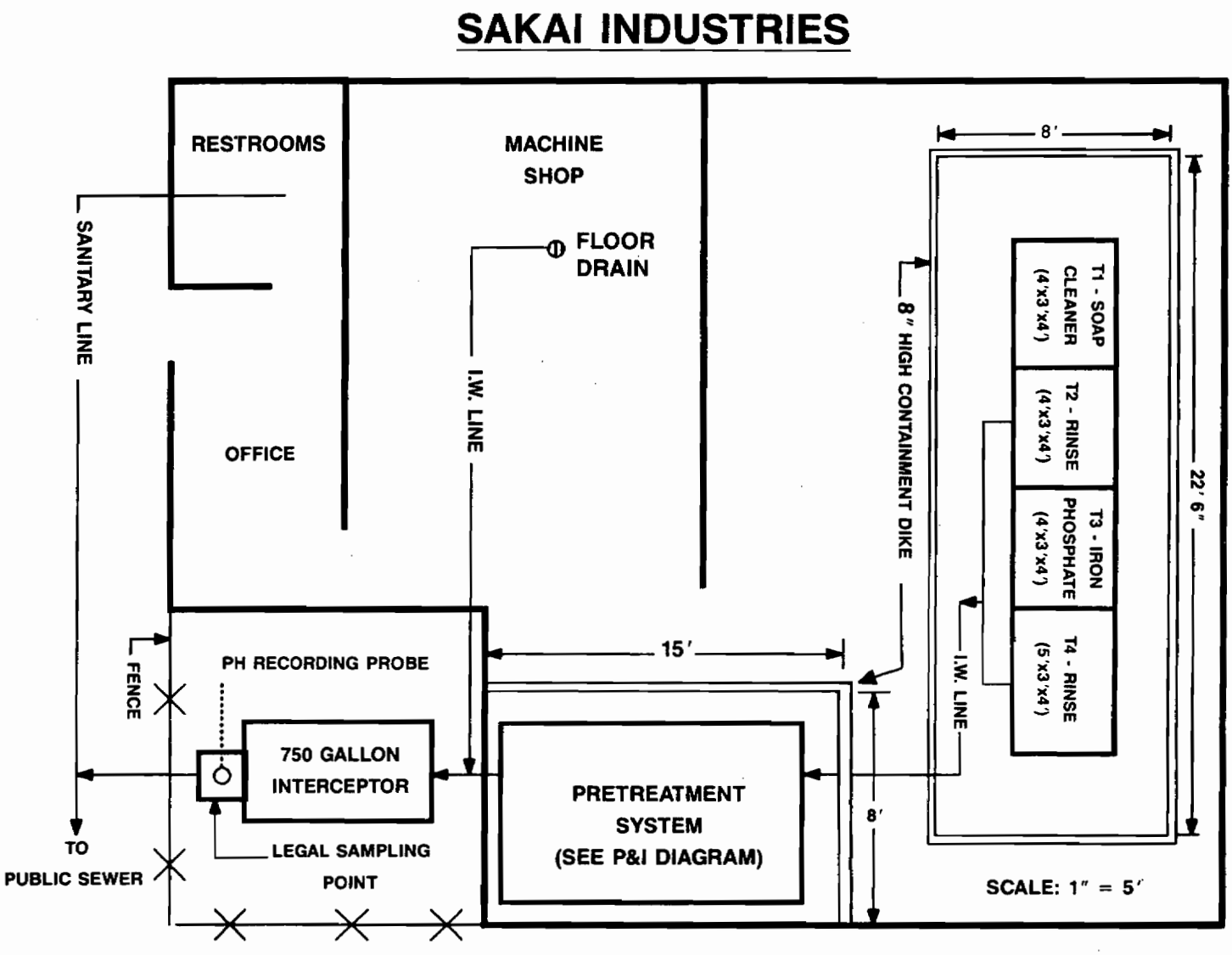
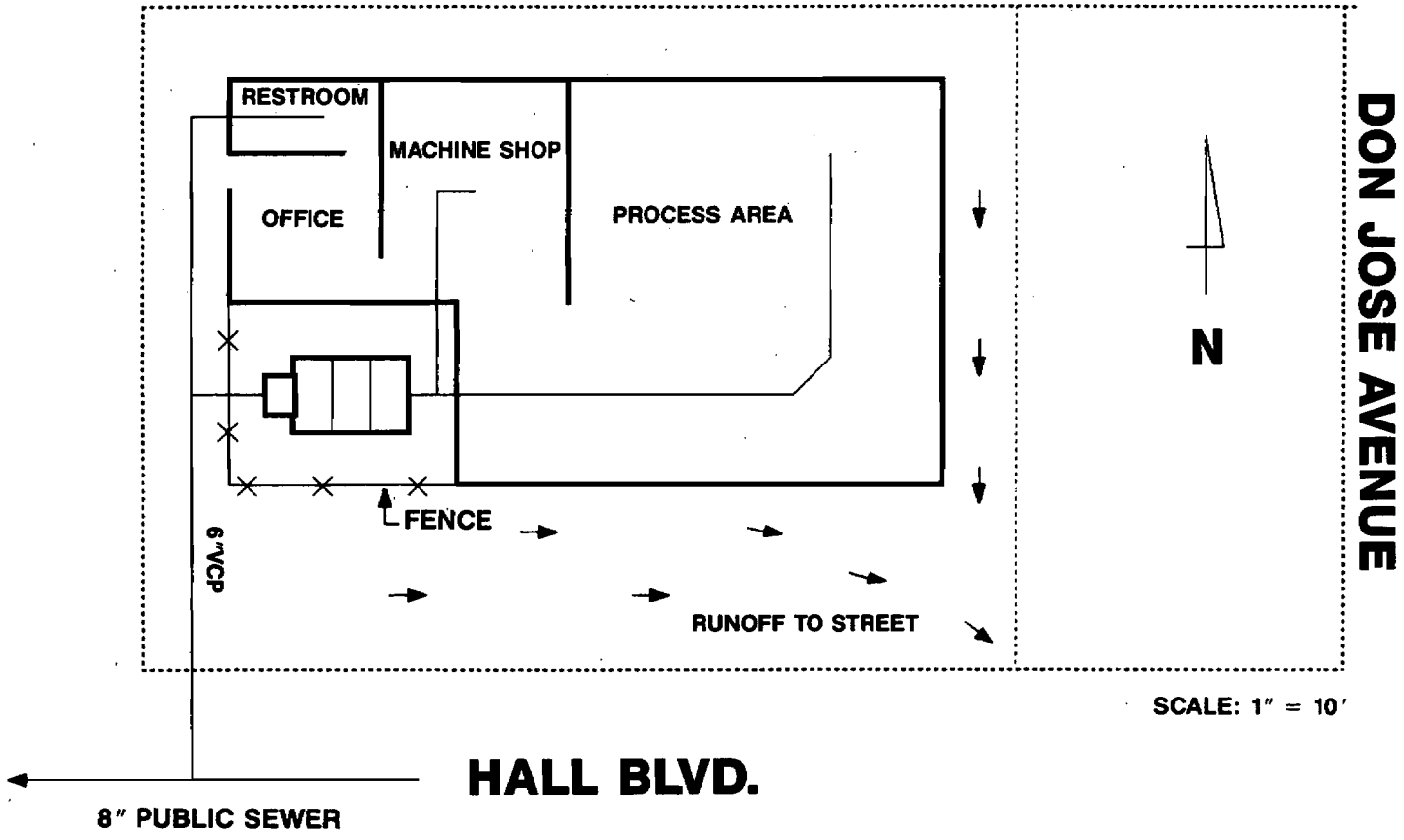


FIGURE 1: SAMPLE SEWERAGE PLAN

2. Plot Plan .

A plot plan of company property, drawn to scale, showing adjacent named streets and a properly oriented north arrow must be provided. The method of disposal of rainwater runoff should be stated and shown in the plan. Grading, drainage or direction of storm runoff must be shown. Plant sewer lines and the connection to the public sewer should also be included. A sample plot plan is shown below in Figure 2.



SAKAI INDUSTRIES
123 HALL BLVD.
PLAYA LINDA, CA 90000

FIGURE 2: SAMPLE PLOT PLAN

3. Plans of Pretreatment and Monitoring Facilities.

Detailed plans of all wastewater pretreatment and monitoring facilities must be furnished. These should include plan and section views of the pretreatment system, design data, catalog cuts, and sizes of tanks, reactors and other equipment involved. A flow schematic must also be submitted for pretreatment systems with more than one unit process. A sample pretreatment system diagram is shown below in Figure 3.

The Districts require pretreatment systems to be designed to consistently remove the types of pollutants generated by the company's wastewater-producing operations to levels which meet any applicable Federal or Local limitations. For most industrial facilities, the minimum required pretreatment consists of a three-compartment, gravity separation interceptor (clarifier) and a sampling box. The interceptor must provide at least 30 minutes of detention time based on the peak wastewater discharge rate and have a minimum capacity of 500 gallons. It must be properly baffled to prevent sand, grit, oil and grease from entering the sewer. The sampling box must be suitable for obtaining grab or continuous wastewater samples. It must be located downstream of all sources of industrial wastewater and of any pretreatment equipment, and must not collect any sanitary wastes. In addition, the sampling box must be located in a secure area of the facility, away from traffic and production activity. Finally, each permitted industrial sewer outfall may only have one sampling box, except as required by federal regulations. Both the interceptor and the sampling box must be constructed with a structurally sound material. It is the permittee's responsibility to adopt the proper precautions (e.g., double containment, coating, etc.) to prevent the contamination of the surrounding soil or groundwater. Copies of the County Engineer Standards for interceptor and sampling box are shown in the Appendices 6.2 and 6.3.

Additional required pretreatment facilities may include pH neutralization, clarification, flocculation, dewatering, or other more extensive facilities. Any pretreatment systems judged by the Districts to require engineering design shall have plans prepared, stamped and signed by an engineer of suitable discipline registered in the State of California.

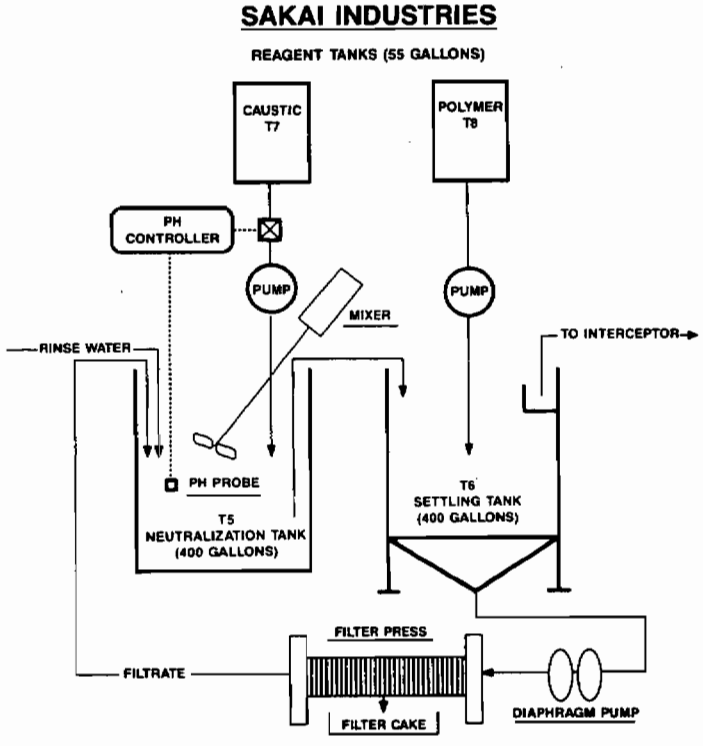


FIGURE 3: SAMPLE PRETREATMENT SYSTEM P&I DIAGRAM

B. Additional Plans

Whenever applicable, additional plans must be provided according to the following specific policies and guidelines:

1. Spill Containment Systems.

Companies that store or use cyanide, heavy metals, acids, toxic organics and/or flammable substances may be required to install spill containment systems as required in the Districts' Spill Containment Guidelines. Such dischargers must provide spill containment systems for all applicable tanks to prevent toxic materials from entering the sewer. The applicant must submit plans and calculations (refer to **Form C** in Appendix 6.1) that indicate the means of preventing the discharge of toxic materials to the sewer in the event of failure, leakage or accidental overflow of storage or treatment tanks or process equipment. The plans must show plan and elevation views of the spill containment system specifying the dimensions and height of all diking, the volume and contents of the tanks enclosed, and the location of all floor drains, wastewater piping, interceptors or any other wastewater pretreatment facilities. Diked volume must exceed the volume of the largest enclosed tank plus six inches of rainfall (if the area is outdoors). A copy of the Districts' Spill Containment Guidelines can be obtained by sending in the postcard included at the end of this booklet.

2. Flow Measurement Systems.

The Districts require companies having a total discharge of 50,000 gallons or more per day or a peak flow over 100 gallons per minute to install, calibrate and maintain flow measurement systems that are capable of continuously recording effluent flow rates. Companies that have unmetered sources of water supply, excessive/undocumented non-sewered losses, or highly fluctuating wastewater discharge flows may also be required to install flow measurement systems.

The flow measurement sytem should be an open-channel design (e.g. flume, weir, etc.). Closed-pipe flow measurement systems (e.g. turbine, magnetic, etc.) will only be accepted if an open-channel flow measurement system is physically impractical to install and if an open-channel primary element, or another primary element accepted by the Districts, is also installed as a back-up device.

The flow measurement system may also serve as a suitable wastewater sampling point provided it is located downstream from all pretreatment operations. The system should be installed in a secure area of the facility away from traffic and production activity, and as close as possible to the public sewer.

Plans for flow measurement sytems are required to be prepared and signed by an engineer of suitable discipline licensed by the state of California. A copy of the Districts' Flow Measurement Requirements can be obtained by sending in the postcard at the end of this booklet.

3. Rainwater Management.

Discharge of rainwater to the Districts' sewerage system is prohibited without prior approval. The Districts require that all processing areas be properly roofed and graded to prevent any storm runoff from entering into the public sewer. The Districts may accept the installation of automatic rainwater diversion systems in situations where the company proves that it is unfeasible to roof or completely segregate from the sewerage system an area exposed to rainwater intrusion. The applicant must provide a detailed grading plan that shows the direction of storm runoff and the system that will divert rainwater from the sewerage system after 0.1 inches of rainfall. Plan and section views must indicate the specifications of the rainwater diversion device, and of the pumps, sumps and piping involved in diverting rainwater away from the sewerage system. Copies of the guidelines for the discharge of rainwater and of the County Standard I-7 Rainwater Diversion System can be obtained by sending in the postcard at the end of the booklet.

4. Combustible Gas Monitoring Systems.

Industries which are considered to be significant potential dischargers of flammable substances are required to install, operate and maintain an adequate combustible gas monitoring system. This requirement applies to:

a. All petroleum refineries;

b. Gasoline storage/transfer facilities, chemical manufacturing plants, and oil and gas extraction facilities having industrial wastewater discharges of 25,000 gallons or more on any one day; and

c. Any other facility that, upon evaluation with respect to wastewater-producing operations, discharge flow volume, type and quantity of materials being used, stored, or produced, is determined to be a potential discharger of flammable substances.

These industries must submit drawings of the combustible gas monitoring system for the Districts' review prior to installation. The drawings shall show locations, dimensions and specifications of the detector/sensor head assembly and control unit, details of both the upstream and downstream piping, the means of diverting the flow to an appropriate storage facility, and the capacity of the storage system. Manufacturer's catalog cuts, specifications and data sheets shall also be included with the required drawings. A copy of the Districts' Combustible Gas Monitoring System Guidelines can be obtained by sending in the postcard at the end of the booklet.

3.3 Supporting Information

In order to facilitate the permit review process, the applicant must furnish additional information to supplement the application and plans submitted. **As a minimum, all submittals must include items A through D (as described below).** It is the applicant's responsibility to determine what other supporting information must be provided (refer to items E through N).

A. Applicant's Questionnaire **(Form A)**

All submittals must include the questionnaire in Appendix 6.1 **(Form A)**. This questionnaire requests specific information that will be essential in the evaluation of the submittal. The questionnaire will also aid the applicant in determining all the supporting information that needs to be included with the submittal.

B. Estimation of Industrial Wastewater Discharge Flow Rate **(Form B)**

The industrial wastewater discharge flow rate listed on the permit application must be estimated as accurately as possible. All existing companies must complete and submit the "Calculation of Industrial Wastewater Discharge Flow Rate Form" **(Form B)** in Appendix 6.1. Companies not yet in operation must submit supporting information that justifies the industrial wastewater discharge flow rate listed on the permit application.

C. Tank Schedule and Spill Containment Calculations **(Form C)**

The applicant must complete and submit the tank schedule form in Appendix 6.1 **(Form C)** to describe the contents, dimensions and specifications of all tanks used in the process and pretreatment areas. Each tank must be numbered to correspond with the tanks shown on the plans. The applicant must also include detailed calculations that indicate that adequate spill containment is provided for those tanks that contain liquid solutions of acids, cyanide, heavy metals and other toxic materials. The containment system must have enough capacity to contain the largest tank plus six (6) inches of rain (in the event that the containment system is located outdoors). Finally, the spill containment system must not have valves, gates or openings of any kind.

D. Check List **(Form D)**

The applicant must complete and submit the check list in Appendix 6.1. The check list will help both the applicant and the Districts determine the completeness of the Industrial Wastewater Discharge Permit submittal.

E. Waste Minimization Plan

1) Any permittee required to prepare a Source Reduction Plan (Plan) and Hazardous Waste Source Reduction and Management Report (Report) under the Hazardous Waste Source Reduction and Management Review Act of 1989 (SB 14), [Article 11.9 of Chapter 6.5 of Division 20 of the Health and Safety Code, commencing with section 25244.12. Title 22, Chapter 30, Article 6.1 of the California Code of Regulations] is required to submit the Plan and Report and corresponding Summaries to the Districts with its permit submittal.

2) Any permittee who must notify the District of any sewer discharge of substances designated as hazardous waste according to Title 40, Code of Federal Regulations, Part 261 (see Item N of this section). The notification includes a certification that the company has a waste minimization program in place. A written narrative of the program currently in place at the facility must be submitted with the permit package. The program must include at a minimum a description of the processes at the facility which generate waste, the types of wastes generated, and the source reduction measures implemented for these waste streams. If the permittee is already submitting SB 14 plan and report, this would suffice for waste minimization plan discussed here. Notification, however, will still be required.

3) If the permittee is not subject to either of the above requirements, the attached Applicant Questionnaire must still be completed and submitted with the permit application.

F. Process Description

A detailed description of all manufacturing and pretreatment operations must be provided to sustain the information listed on the permit application. This description should specify the types and quantities of raw materials used in each operation as well as the sequence of steps followed during the wastewater-producing and pretreatment operations.

G. Material Safety Data Sheets

Material safety data sheets must be provided for all chemicals used in the facility, especially those chemicals that may contaminate directly or indirectly the wastewater stream.

H. Wastewater Analyses

Existing facilities must submit a minimum of two (2) wastewater analyses with the permit submittal. The analyses should include conventional pollutants such as chemical oxygen demand, suspended solids, total dissolved solids, pH, and toxic pollutants that may be present in the wastewater (e.g. heavy metals and organics). Chemical oxygen demand, suspended and dissolved solids, and heavy metals must be analyzed using 24-hour time composite or flow composite samples, while cyanide, sulfides, oil and grease, and organic pollutants must be analyzed using grab samples. Estimated concentrations will only be allowed for those companies not yet in operation.

I. Baseline Monitoring Report

All companies believed to be subject to EPA industrial categorical regulations are required to submit a Baseline Monitoring Report (BMR) for every industrial waste discharge connection to the public sewer. The purpose of the BMR is to indicate a company's compliance status with respect to EPA's regulatory requirements. The BMR must be completed and included in the permit submittal. Existing facilities required to supply wastewater analyses as part of the BMR submittal must submit one representative sample analysis of the wastewater effluent for all the parameters regulated by the category. Representative samples are 24-hour composite samples. For unstable parameters such as pH, cyanide, oil & grease, volatile organics, phenols, and sulfides, a minimum of four grab samples must be collected over a 24-hour period. The average of the grab sample analyses is considered representative. The applicant must also submit at least one 24-hour flow-composite or time-composite analysis for all other regulated pollutants. The applicant should refer to Section 2.1 of this booklet to check whether or not the company falls under any of the categories set by the EPA. The applicant can obtain additional information and BMR forms by sending in the postcard at the end of this booklet, or by calling the District's Industrial Waste System.

J. Pump Curves

The applicant must provide characteristic rating curves for all pumps conveying wastewater in the facility.

K. Catalog Cuts

Manufacturer's data and brochures of specific pretreatment units, flow measurement systems, pumps and other equipment must be furnished.

L. Baseline Credit Information

The Districts' connection fee ordinances were developed to recover the costs of constructing new capital facilities needed to accommodate the added burden of new and expanded wastewater dischargers on the various sewer systems. As part of this program, capacity unit entitlements have been established to quantify such added wastewater burdens.

The industrial wastewater permit approval process evaluates the demand the company's wastewater places on the Districts' sewer system for the facility in question (refer to sections 1.4 and 4.2B). A connection fee is due if the company's wastewater discharge exceeds their baseline credit at the site by more than 25 percent. The baseline credit is usually established from a previous industrial wastewater discharger at the site. However, companies that occupy a facility with no previous industrial wastewater discharge may still be entitled to receive a baseline credit. Industrial wastewater dischargers in existence prior to June 30, 1982 may receive credit for the site in question, provided that they submit twelve consecutive months of water bills for any period from July 1, 1976 to June 30, 1982. Corresponding evaporative and consumptive loss calculations should also be provided. If water bills cannot be obtained, the industrial wastewater discharger may receive credit based on the building's square footage by providing such information as a property tax statement, a rental agreement, or other legal document.

M. Equipment Costs

The applicant must provide itemized cost estimates of all proposed pretreatment equipment, monitoring system, spill containment system and any other equipment used to treat, monitor, convey or contain the industrial wastewater discharge.

N. Notification Report of the Discharge of Hazardous Wastes

If the wastewater discharged by your facilities to the sewer is 'hazardous' under federal regulation (40 CFR Parts 261.20-261.33), you are required to notify the Districts of this discharge of federally regulated hazardous waste to the sewer. Please request the **Notification Report of the Discharge of Hazardous Wastes** form from the Districts by checking the appropriate box on the Information Request Postcard at the end of this booklet.

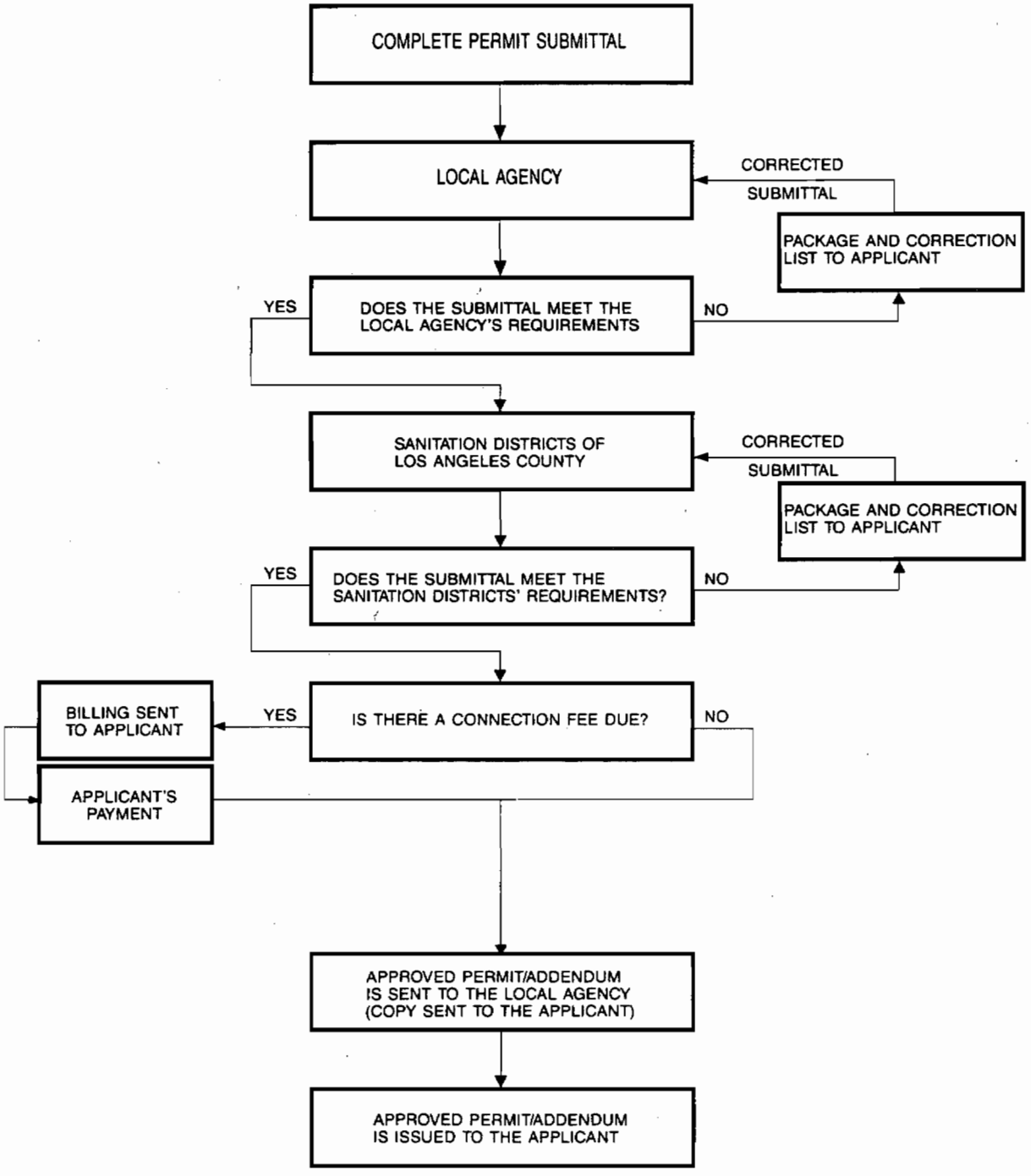
The Notification Report must include the name of the hazardous waste, the EPA hazardous Waste Number, and the type of discharge (continuous, batch or others). The Notification Report shall also include the estimated concentrations of hazardous constituents and the monthly mass discharges of these constituents, to the extent that the information is known and available to you. You must also certify that you have a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree you have determined to be economically practical. The Notification Report must also be signed by a responsible company official.

A new Notification Report must be filed if there is any substantial change in the volume or character of the hazardous wastes present in your discharge and if there are new regulations promulgated which identify additional wastes in your discharge as hazardous.

4. OVERVIEW OF THE PERMIT EVALUATION AND APPROVAL PROCESS

The Industrial Wastewater Discharge Permit is issued jointly by the Districts and the local agency. After the applicant has completed and reviewed the permit application form, plans and supporting information, the package must first be sent to the local agency. **Do not submit the permit application package directly to the Districts.** Once the local agency receives the permit package, the following evaluation process begins.

PERMIT SUBMITTAL EVALUATION AND APPROVAL PROCESS



4.1. Local Agency's Evaluation

A. Approval or Rejection

The local agency will approve the permit application package if the information is complete and meets with local requirements. However, if the package is insufficient or unclear, it will be returned with a list of specific corrections. Once all corrections have been made, the permit application package will be approved and forwarded to the Districts for review and approval.

B. Filing Fees

Most local agencies require the payment of a filing fee prior to approving the Industrial Wastewater Discharge Permit. To determine if a fee is required, please contact the local agency. Filing fees should be sent to the local agency with the submitted permit application package.

4.2 Districts' Evaluation

A. The Review Process

Once the permit application package has been received, the permit is logged in and checked for completeness. If the submittal is determined to be incomplete, it will be automatically rejected.
If determined to be complete, the permit application package will be reviewed by an Industrial Waste Section project engineer. As part of the engineer's review, additional information may be required. In some cases this can be done by phone or mail, although if necessary, a company representative may be asked to meet at the Districts' Joint Administration Office to clarify certain points. If the required information is not provided, the permit application package will be rejected and returned with a list of specific corrections. Once the corrections are made, the resubmittal must be made directly to the Districts within the specified time or enforcement actions will be initiated. Once the application is determined to be complete and correct, a connection fee evaluation will be performed.

B. Connection Fee

The project engineer will determine whether or not a connection fee is required based on the proposed discharge and baseline entitlement. If a connection fee is required, a bill will be sent to the company official listed on line 19 of the application form. If payment is made by personal or company check, ten working days will be required to clear the payment. Check clearing is not required for certified checks. The permit package will not be processed further until payment has cleared or a certified check has been remitted. If no connection fee is required, the permit evaluation proceeds directly to the next step—permit issuance.

C. Permit Issuance

Once the connection fee payment has cleared, the approved permit will be issued. The approved permit will include a list of requirements. The company is required to comply with all indicated items on this list as a condition of the permit approval. Failure to comply with permit requirements will lead to enforcement actions and possible revocation of the Industrial Wastewater Discharge Permit.

D. Approved Permit is Returned to the Local Agency

The applicant's copy of the approved Industrial Wastewater Discharge Permit and the approved plans are returned to the local agency. The local agency will then forward the permit, plans and requirement list to the company. Copies of the cover letter and the requirement list are sent to the company the same day that the permit package is sent to the local agency.

5. MAINTAINING A VALID PERMIT

An approved permit is no longer valid if any one of the following occurs:

1. The wastewater quality changes or the wastewater discharge changes by more than 25 percent or other threshold level, as specified in the industrial waste permit requirements.
2. Any unapproved additions or modifications are made to the existing facility.
3. The permit has not been amended within five (5) years of the date when it was last issued.
4. The company has undergone a change in ownership.

For situations where the first three conditions occur, the permittee must obtain a permit revision or addendum. For a change of ownership, the new owner must apply for a new permit.

5.1 Permit Revision

A permit revision is required when the wastewater discharge deviates from the quantity/quality indicated in the current permit by more than 25 percent. The permit revision submittal should include the following:

1. A new permit application form.
2. A detailed description explaining the reason for the change in wastewater characteristics between the existing discharge and that indicated in the original permit flow rate. (See "Section 3.3, Part B.) If significant changes in wastewater-generating processes have been made since the original permit approval, the company will be required to submit updated plans and information. (See Section 3.2.).

A permit revision submittal must be forwarded to the local agency for initial review. (See Section 4.)

5.2 Permit Addendum

Any addition or modification which does not affect the existing wastewater quality or quantity by more than 25 percent will require a permit addendum. A permit addendum submittal should include the following:

1. A transmittal letter which gives a detailed description of all the proposed changes to the existing facility.
2. A set of plans showing the proposed changes. The addendum submittal should contain the same number of plans as a new permit submittal. (See Table 1 in Section 3.2.)
3. Any additional supporting information. (See Section 3.3.)

The permit addendum submittal must be forwarded to the local agency for initial review. (See Section 4.)

5.3 Change in Ownership

Industrial Wastewater Discharge Permits are NOT transferable. Whenever there is a change of ownership, the new owner must apply for a new Industrial Wastewater Discharge Permit. New owners must refer to the beginning of the booklet for information on applying for an Industrial Wastewater Discharge Permit.

APPENDIX 6.1: FORMS

PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE
COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY
1955 Workman Mill Road / Whittier, CA
Mailing Address: P.O. Box 4998 / Whittier, California 90607-4998
Charles W. Carry, Chief Engineer and General Manager
(310) 699-7411

PERMIT NO. _____

01 CHECK ONE: New Sewer Connection ☐ Existing Sewer Connection ☐

02 Applicant _____ (Legal Company Name)

03 Check one and fill in appropriate information

☐ Corporation Name _____

Year Incorporated _____ State of Incorporation _____ ID# _____

☐ Partnership Name _____ Partners _____

☐ Sole Proprietor Name _____ Business Names _____

04 Company Address _____ (Street) (City) (State) (Zip)

05 Mailing Address _____ (Street) (City) (State) (Zip)

06 Point of Discharge _____

07 Number of years applicant has been in business at present location _____ (yrs) _____ (months)

08 Name of Property Owner _____

Address of Property Owner _____ (Street) (City) (Zip) _____ (Telephone Number)

09 Assessors Map Book No. _____ Page No. _____ Parcel No. _____

10 Type of Industry _____ (General Description) _____ (Federal SIC No.)

11 Number of Employees (Full Time) _____ (Part Time) _____

12 Raw Materials Used _____ (General Description — Add Additional Sheets as Needed)

_____ (Daily Amount Used)

13 Products Produced _____ (General Description — Add Additional Sheets as Needed)

_____ (Daily Amount Produced)

14 Wastewater Producing Operations _____

_____ (Full Description — Add Additional Sheets as Needed)

15 Time of Discharge _____ AM/PM to _____ AM/PM, Shifts per Day _____, Days per Week M T W Th F Sa Su
(Circle AM or PM) (Circle Days)

16 Wastewater Flow Rate _____ (Average) Gallons per Day _____ (Peak) Gallons per Minute

17 Constituents of Wastewater Discharge _____

_____ (General Description — Attach Chemical Analysis Results to the Application)

18 Person in company responsible for industrial wastewater discharge

_____ (Name) _____ (Position) _____ (Telephone Number)

I affirm that all information furnished is true and correct and that the applicant will comply with the conditions stated on the back of this permit form.

Date _____, 19____

19 Signature for Applicant _____ (Company Administrative Official) (Name) _____ (Position)

20 Approved/Reviewed by City or County Official

Date _____

For L.A. County Dept. of Public Works. . . ☐

City of _____

Name _____

Position _____

Approved by Sanitation Districts of Los Angeles County

Date _____

Expiration Date _____

Charles W. Carry, Chief Engineer & General Manager

By _____

Position _____

Note: Please submit application first to the applicable City or County agency in which the point of discharge is located. Please contact the local agency for the required permit processing fee. Submit the **original application** (Do not send copies).

DETACH ALONG DOTTED LINE

CONTINUED ON NEXT PAGE

APPLICANT FOR PERMIT MUST READ THIS MATERIAL

IN CONSIDERATION OF THE GRANTING OF THIS PERMIT, the applicant agrees:

1. To furnish any additional information on industrial wastewater discharges as required by the Districts,

2. To accept and abide by all provisions of ordinances, policies and guidelines of the Districts,

3. To operate and maintain any required industrial wastewater treatment devices in a satisfactory approved manner,

4. To cooperate at all times with Districts' personnel, or their representatives, in the inspection, sampling and study of industrial wastewater facilities and discharges,

5. To immediately notify the Districts at (310) 699-7411 during normal working hours or at (310) 437-6520 or 437-1881 after 4:00 P.M. or on weekends in the event of any accident, negligence or other occurrence that causes the discharge to the sewer of any material whose nature and quantity might be reasonably judged to constitute a hazard to the public health, environment, Districts' personnel or wastewater treatment facilities,

6. To pay to the Districts annually the required surcharge or user charge fee for industrial wastewater treatment,

7. To submit, as required by the Districts, accurate data on industrial wastewater discharge flows and wastewater constituents,

8. To operate only one industrial wastewater discharge point to the sewerage system under the authority granted by this permit,

9. To submit additional pages as required to furnish the necessary information if there is inadequate room on the reverse side of this permit form to complete submittal of requested data,

10. To apply for a revised Districts' Industrial Wastewater Discharge Permit if any change in industrial processes, production, method of wastewater treatment or operations creates a significant change in industrial wastewater quality, or if the quantity of wastewater discharged changes by more than 25% or other threshold level as specified in industrial waste permit requirements,

11. To provide immediate access to authorized personnel of the Districts to any facility directly or indirectly connected to the Districts' sewerage system under emergency conditions and at all other reasonable times.

DETACH ALONG DOTTED LINE

FORM A: APPLICANT QUESTIONNAIRE

NAME OF COMPANY_____ CONTACT PERSON_____

1. **Reason for submittal** - circle A, B, or C, and complete the corresponding questions.

A. New Permit (for new companies and for changes in ownership)

Type of business_____
Is the facility new or existing?_____
If existing, previous company name_____
Type of business_____, Industrial Waste Permit No._____
Provide a description off all manufacturing processes below or in an attachment.

Provide a description of all wastewater producing operations below or in an attachment.

Are any changes being made to the facility's existing wastewater pretreatment/conveyance systems? _____ If yes, briefly explain these modifications below or in attachments.

Is there more than one company discharging industrial wastewater at your facility?_____
If yes, provide for each company its name, a separate address and a description of its operations. If feasible, each company must apply for a separate permit and must have its own incoming water meter and a separate industrial wastewater sampling point.

If your facility will involve a new connection to the public sewer, please circle the point of connection: a. Local City sewer, b. Sanitation Districts' Trunk sewer.

If you are relocating, and had a previous Industrial Wastewater Discharge Permit, give your previous address _____, and permit no._____.
If you have received a temporary permit, give permit no._____

All submittals for new permits **must** include a permit application, plans and pertinent supporting information.

B. Revision of Existing Permit (for a 25 percent or more change in wastewater quantity/quality)

Permit no._____
Has your wastewater quantity and/or quality changed over 25 percent ?_____ If yes, documentation addressing the magnitude and reason(s) for the change must be submitted. If no, a revision is not required at this time.
Have there been any changes in production processes, wastewater pretreatment systems or sewerage plumbing?_____ If yes, submit plans and describe these changes below or in attachments:

All submittals for a revised permit **must** include a permit application, plans (if changes have occurred) and supporting information.

C. Addendum to Permit (for modifications to the wastewater conveyance/pretreatment system)

Permit no._____
Provide a brief summary of the existing conditions and the proposed changes below.

Submittal must include plans and supporting information.

The applicant must also answer the questions on the back of this form.

2. Supporting Information Required

All submittals **must** include the following forms, which are included in Appendix 6.1:

Form A — Applicant Questionnaire
Form B — Calculation of Industrial Wastewater Discharge Flowrate
Form C — Tank Schedule and Spill Containment Calculations
Form D — Check List

Furthermore, your company must answer the questions below to determine the additional supporting information that must be provided:

a) Waste Minimization (refer to sections 2.4 and 3.3 E)

Please describe below or in an attachment all of your company's existing/proposed pollution prevention measures (e.g., reuse, product reformulation, process changes, housekeeping measures, etc.):

Has your company previously submitted a waste minimization plan to the Districts?_____
If the answer is no, please read sections 2.4 and 3.3 E and submit the appropriate plan (if applicable). Your company is encouraged to obtain information on source reduction measures and options for your industrial processes by calling the Districts' Industrial Waste Section at (310) 699-7411.

b) Wastewater Quality (refer to sections 3.3 G and H)

Please provide the results of at least two 24-hour composite analyses attesting to concentrations of chemical oxygen demand, suspended solids and any priority or regulated pollutants that may be found in your wastewater. Your company must also provide material safety data sheets of all chemicals used in the facility that may directly or indirectly contaminate your wastewater.

c) New equipment (refer to sections 3.3. F, J and K)

Is your company installing new pretreatment, monitoring, conveyance or industrial equipment that may have an impact on the quality or quantity of your wastewater?_____
If yes, please provide catalog cuts of all units and important details such as: number of units, sizes, hours of operation, pump rating curves, operating parameters, etc.

d) Baseline Monitoring Report (refer to sections 2.1 and 3.3 I)

Does your company currently fall under one of EPA's categories?_____
If yes, your company must submit a Baseline Monitoring report, unless it submitted one in the past and there have been no changes in operations that may change your categorical standards.

e) Rainwater Management (refer to section 3.2)

Are there any outdoor drains, trenches or sumps at your facility that are connected to the sewerage system?_____
If yes, your company must submit plans and information that describe the existing means to divert rain water from the sewerage system or a proposal to comply with the Districts' rainwater guidelines. Please be informed that new automatic rainwater diversion systems will not be approved unless the applicant proves that this is the only feasible alternative.

DETACH ALONG DOTTED LINE

FORM B: CALCULATION OF INDUSTRIAL WASTEWATER DISCHARGE FLOW RATE

COMPANY NAME: _____

Calculation of flow rate is based on: (Check one)

____ Adjusted metered water supply (Company must complete the calculations below)
____ Direct measurement through a Districts' approved effluent flow measurement system *
____ Estimate for a facility not yet in operation **

ADJUSTED METERED WATER SUPPLY CALCULATIONS (Round all figures to two decimals)

MILLION GALLONS PER YEAR

I Incoming Water

1. Metered Water Supply from Purveyor (Water Company). Use most recent 12 consecutive months and attach copies of water bills. _____ . MGY
2. Water Supply from Company Well. Attach meter or water master data for most recent 12 consecutive months. _____ . MGY
3. Water Received in Raw Materials, or by other means. Explain in attachments. _____ . MGY
4. Rainwater/Groundwater Discharged to the Sewerage System. Explain in attachments. _____ . MGY
5. Total Incoming Water. (Add lines 1 to 4) _____ . MGY

II Water Losses

6. Wastewater Discharged to Stormwater Drainage System Explain in attachments. (NPDES Permit No._____) _____ . MGY
7. Water Lost Through Evaporation and Irrigation. (add lines a + b + c + d on the back of this form) _____ . MGY
8. Water Lost in Products. Explain in attachments. _____ . MGY
9. Sanitary Flow Deduction (from line "e" on the back of this form) _____ . MGY
10. Total Water Losses (add lines 6 to 9) _____ . MGY

III Industrial Wastewater Discharged

11. Calculated Industrial Wastewater Discharged to the public sewer (subtract line 10 from line 5) _____ . MGY
12. Any Proposed increase (+) or decrease (−) in industrial wastewater discharge to the public sewer? (explain in attachments) Circle one (+) (−) _____ . MGY
13. Total proposed yearly industrial wastewater discharge (add lines 11 and 12) _____ . MGY
14. Average industrial wastewater flow (use line 13 to calculate below)

Million Gallons per Year	×	1,000,000	÷	Number of Discharge Days per Year	=	Gallons per Day
	×	1,000,000	÷		=	

This is the average daily flow rate that must be used on the application for industrial wastewater discharge. (It may be rounded to two significant figures.)

Note: The applicant must also complete the calculations on the back of this page.

* If your company currently has an **approved effluent wastewater flow measurement system**, please submit effluent totalizer readings for the last twelve months. Your company does not have to complete the rest of this form.

** The company must submit detailed information that substantiates how the flow rate was estimated.

WATER LOSSES

a. COOLING TOWER LOSSES

Tonnage	×	Hours of Operation Per Year	×	Load[1]	×	1.38[2]	÷	1,000,000	=	Mil. Gal. Per Year	
	×		×	0.	×	1.38	÷	1,000,000	=		
	×		×	0.	×	1.38	÷	1,000,000	=		
									=		a

[1]Load= 0.50 to 0.80
[2]1.38 = Gallons evaporated per hour per ton

b. BOILER LOSSES

Horsepower	×	Hours of Operation Per Year	×	Load[3]	×	% Evaporation[4]	×	3.82[5]	÷	1,000,000	=	Mil. Gal. Per Year	
	×		×	0.	×	0.	×	3.82	÷	1,000,000	=		
	×		×	0.	×	0.	×	3.82	÷	1,000,000	=		
											=		b

[3]Load = 0.50 to 0.80
[4]%Evaporation = (100 − % condensate returned)/100
[5]3.82 = Gallons evaporated per hour per ton

c. OTHER EVAPORATIVE LOSSES
(Explain in attachments)

Million Gallons Per Year	
	c

d. IRRIGATION LOSSES

Square Feet of Land Irrigated	×	18.7[6]	÷	1,000,000	=	Mil. Gal. Per Year	
	×		÷		=		d

[6]18.7 = Gallons irrigated per square foot per year

e. SANITARY FLOW DEDUCTION

No. Employees	×	Working Days Per Year	×	Gallons Per Employee Per Day	÷	1,000,000	=	Mil. Gal. Per Year	
	×		×	15	÷	1,000,000			e

INCOMING WATER METERS

Please list all the accounts (or other identification) for all the meters that measure the water supplied to the facility.

Meter#	Location	Account#

Abbreviations and Conversion Factors

MGY = million gallons per year
1 cubic foot = 7.48 gallons
1 acre foot = 325,900 gallons
1 acre = 43,560 square feet
1 CCF = 748 gallons

DETACH ALONG DOTTED LINE

FORM C: TANK SCHEDULE & SPILL CONTAINMENT CALCULATIONS

Please complete one form for each containment area (make additional copies if necessary).

TANK I.D. NUMBER	TANK NAME	TANK DIMENSIONS*	TANK CONTENTS	pH	IS TANK ELEVATED?**

* Specify height and diameter if tank is round; or length, width and height if tank is rectangular.

** If the tank is elevated above the ground on legs, specify the location (elevation) of the bottom of the tank. If the tank is located on a pad or solid platform, specify the dimensions of the pad or platform.

2. Spill Containment Calculations (make additional copies if necessary).

Answer the following questions:	CIRCLE ONE	
Is this the first time that your company submits a permit package to the Districts?	YES	NO
Does your company currently have tanks/equipment with hazardous solutions that lack adequate spill containment?	YES	NO
Is your company proposing any additions/modifications of tanks or equipment that will need spill containment?	YES	NO

If the answer to any of the questions above is "YES", your company must submit plans that describe and propose an adequate spill containment system and must complete the calculations below:

1. Containment Volume Required:

The required containment volume is equal to the capacity of the largest tank containing a solution that requires containment plus the volume of 6 inches of rain over the containment area (if the area is not roofed)

① = Volume of largest tank (assumed to spill) + volume of 6 inches of rain over contained area (if area is outdoors)

① = _____ + _____

① = _____ (specify units)

2. Containment Volume Provided

The containment provided is equal to the volume of the dike, berm, sump or other containment structure minus the volume displaced by tanks, pads and other equipment within the containment area.

② = Volume of containment dike − Volume displaced by tanks and other equipment.

② = _____ − _____

② = _____ (specify units)

Subtract ① from ②

② − ① = _____ (Must be greater than zero to satisfy spill containment requirements)

Note: All drains, sumps and associated plumbing within spill containment areas must be clearly shown on submitted drawings.

DETACH ALONG DOTTED LINE

FORM D: CHECK LIST FOR AN INDUSTRIAL WASTEWATER DISCHARGE PERMIT SUBMITTAL

COMPANY NAME: _____

1. Permit Application Form _____

2. Plans (Minimum size: 11″ x 17″, maximum size: 30″ x 42″)

   a. Required Plans:

      Sewerage Plan (location of equipment, process tanks and sewer lines) _____

      Plot Plan (location of facility, sampling point and connection to the public sewer) _____

      Plans of Pretreatment Facilities _____

   b. Additional Plans (if needed):

      Spill Containment System _____

      Flow Monitoring System _____

      Rainwater Management _____

      Combustible Gas Monitoring System _____

3. Supporting Information:

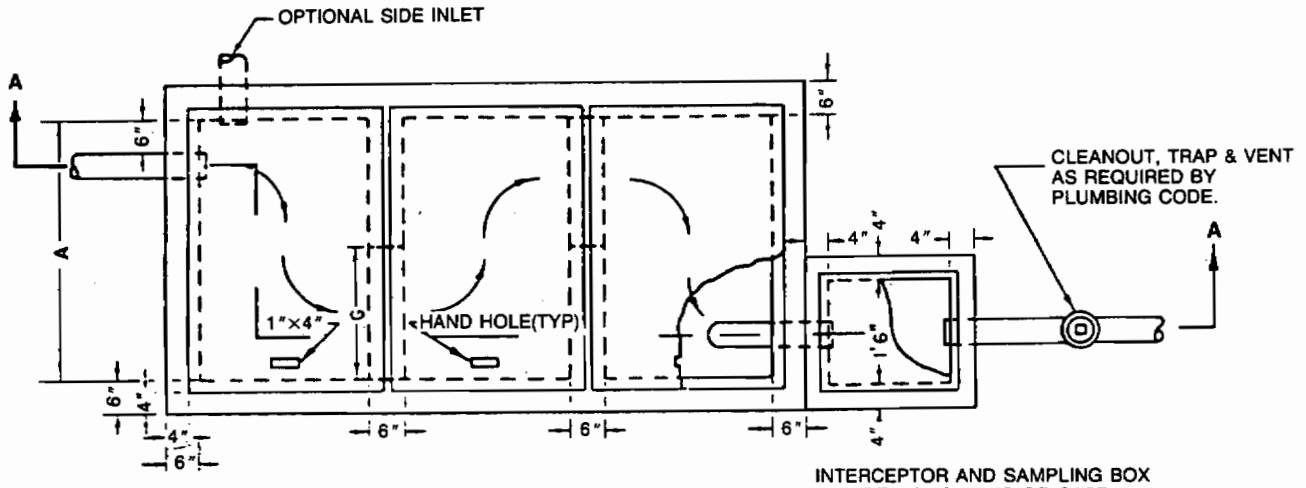
ALWAYS REQUIRED

- Applicant's Questionnaire (Form A) _____
- Estimation of Discharge Flow Rate and Water Bills (Form B) _____
- Tank Schedule and Spill Containment Calculations (Form C) _____
- Checklist (Form D) _____

COMPLETE FORM A TO DETERMINE WHICH OF THESE ARE NECESSARY

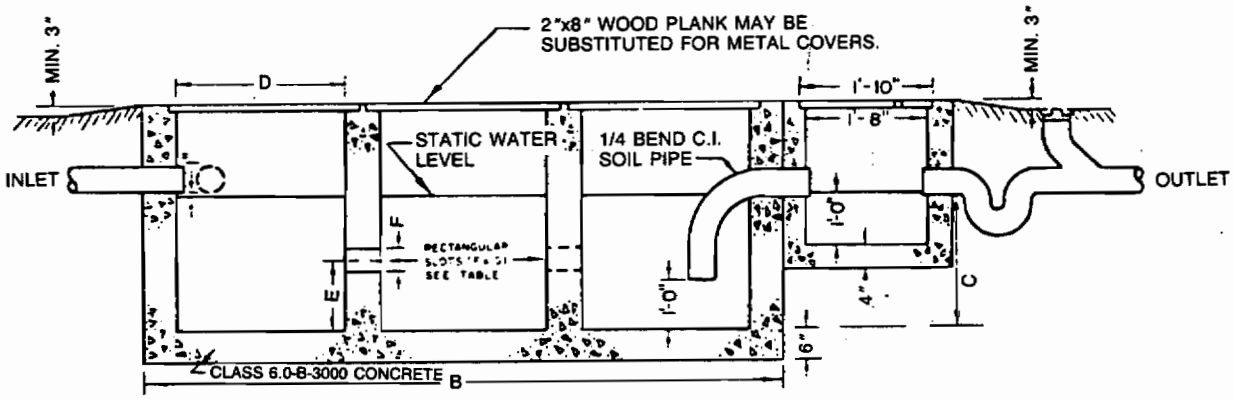
- Waste Minimization Plan _____
- Process Description _____
- Material Safety Data Sheets _____
- Wastewater Analyses _____
- Baseline Monitoring Report (for EPA categorical companies) _____
- Pump Curves _____
- Catalog Cuts of Pretreatment Equipment _____
- Baseline Credit Information _____
- Equipment Costs _____
- Notification Report of the Discharge of Hazardous Wastes (if applicable) _____

SAND & GREASE INTERCEPTOR



PLAN
NOT TO SCALE

INTERCEPTOR AND SAMPLING BOX MAY BE MONOLITHIC OR CAST SEPARATELY AND JOINED TOGETHER WITH EPOXY RESIN.



SECTION A - A
NOT TO SCALE

NOTES:
THE APPROVAL OF THE COUNTY ENGINEER MUST BE OBTAINED BEFORE INSTALLATION. THE INTERCEPTOR TO BE CONSTRUCTED OF TYPE II PORTLAND CEMENT CONCRETE. INTERCEPTOR EXCEEDING 6'6" IN DEPTH MUST BE CONSTRUCTED OF REINFORCED CONCRETE. IF INSTALLED INSIDE OF BUILDING THE TOP OF INTERCEPTOR MAY BE LEVEL WITH FLOOR PROVIDED THAT WASTES ENTER THROUGH INLET PIPE ONLY.
ALL SURFACE WATER MUST DRAIN AWAY FROM INTERCEPTOR TO EXCLUDE RAIN WATER FROM PUBLIC SEWERS.

CAPACITY GALLONS	DIMENSIONS							COVER SIZE	METAL COVERS	PIPE SIZE
	A	B	C	D	E	F	G			
510	3'-0"	9'-6"	3'-0"	2'-6"	1'-6"	0'-4½"	1'-6"	2'-10"x3'-4"	¼" STEEL PLATE	4" MIN.
866	3'-6"	10'-3"	4'-0"	2'-9"	2'-0"	0'-6"	1'-9"	3'-1"x3'-10"	⅜" ALUMINUM PLATE	4" MIN.
1260	4'-0"	12'-6"	4'-0"	3'-6"	2'-0"	0'-6"	2'-0"	3'-10"x4'-4"	⅜" ALUMINUM PLATE	4" MIN.

DEPARTMENT OF COUNTY ENGINEER-COUNTY OF LOS ANGELES
PROJECT PLANNING & POLLUTION CONTROL DIVISION
APPROVED

C.G. BRISLEY, JR.
DIVISION ENGINEER

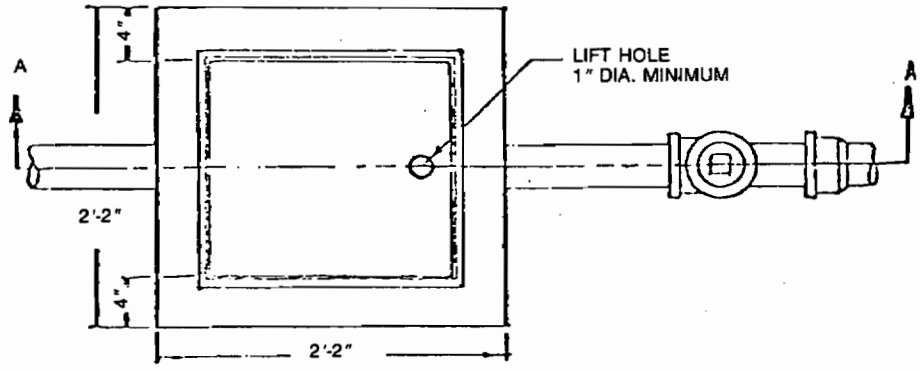
HARVEY T. BRANDT
COUNTY ENGINEER

COUNTY ENGINEER STANDARD

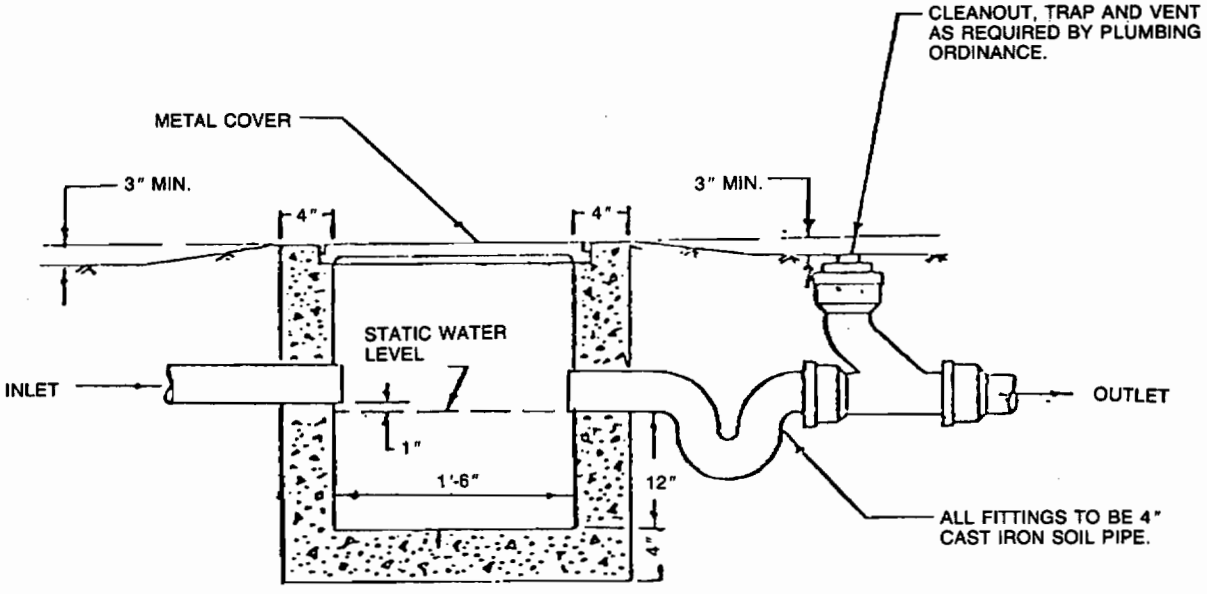
I-2

DATE: MAY 1964
REVISED TO: SEPT. 1974

SAMPLING BOX



PLAN
WITH COVER REMOVED



SECTION A - A
NOT TO SCALE

NOTES:
THE APPROVAL OF THE COUNTY ENGINEER MUST BE OBTAINED BEFORE INSTALLATION. IF INSTALLED OUTSIDE OF A BUILDING, ELEVATE THE SIDEWALLS ABOVE THE SURROUNDING GROUND SURFACE TO EXCLUDE STORM WATER. IF LOCATED INSIDE OF A BUILDING, THE TOP OF SAMPLING BOX MAY BE LEVEL WITH FLOOR PROVIDED THAT WASTE ENTER THROUGH INLET PIPE ONLY. ALL SURFACE WATER MUST DRAIN AWAY FROM SAMPLING BOX TO EXCLUDE RAINWATER FROM THE PUBLIC SEWER.

COUNTY OF LOS ANGELES
DEPARTMENT OF ENGINEER-FACILITIES
SANITATION DIVISION
APPROVED

ASSISTANT DEPUTY

COUNTY ENGINEER

COUNTY ENGINEER STANDARD I-12

DATE: MARCH 1981
REVISION:

STORM WATER POLICY

WASTEWATER ORDINANCE

In 1972, the Sanitation Districts' Boards of Directors first adopted the *Wastewater Ordinance*. The purpose of the Ordinance is to establish controls on users of the Districts' sewerage system in order to protect the environment and public health, and to provide for the maximum beneficial use of the Districts' facilities.

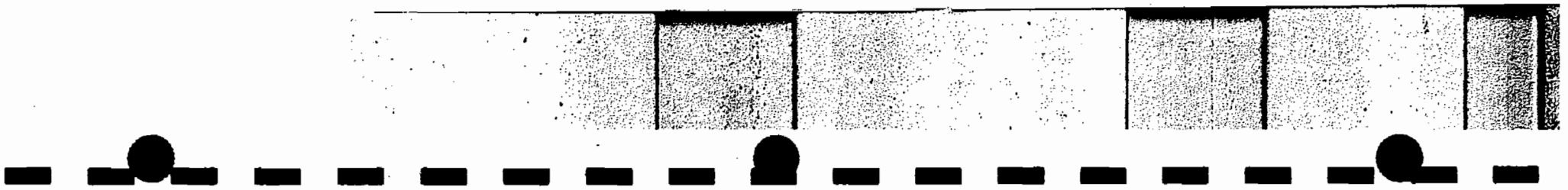
APRIL 1, 1972
As Amended
November 1, 1989

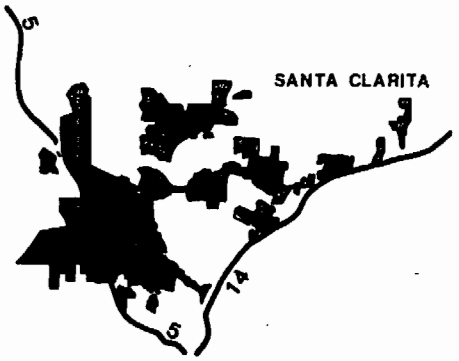
SANITATION DISTRICTS
OF
LOS ANGELES COUNTY

CHARLES W. CARRY
Chief Engineer and General Manager

1955 Workman Mill Road
P.O. Box 4998
Whittier, CA 90607
(310) 699-7411
Industrial Waste Section — Extension 2900

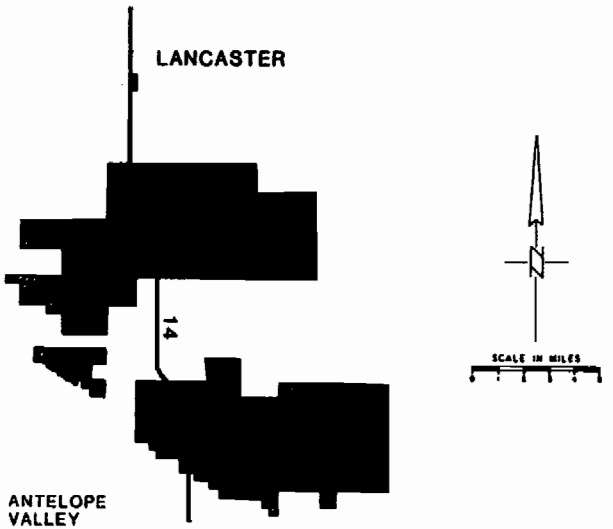
To report any emergencies relating to wastewater discharges which occur after normal working hours or on weekends, please telephone (310) 437-6520 or 437-1881.





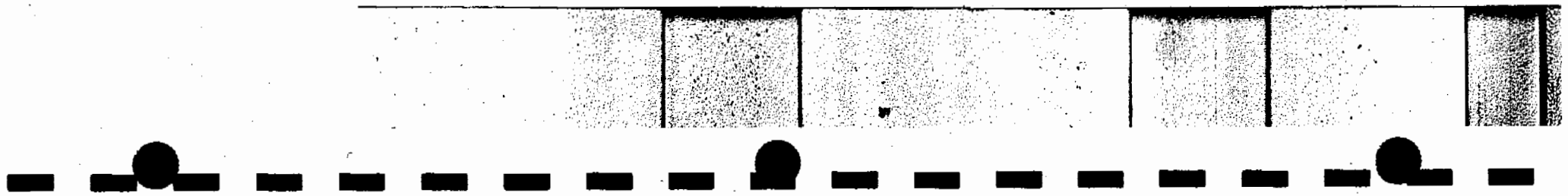
SANTA CLARITA VALLEY

The Boards of Directors of County Sanitation Districts Nos. 1, 2, 3, 4, 5, 8, 9, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29, 32, 33, 34, 35 and South Bay Cities Sanitation District of Los Angeles County do ordain as follows:



ANTELOPE VALLEY

AN ORDINANCE PROVIDING FOR THE ADMINISTRATION OF AN INDUSTRIAL WASTEWATER CONTROL SYSTEM, FOR THE REGULATION OF SEWER CONSTRUCTION AND SEWER USE, FOR THE IMPOSITION OF PERMIT REQUIREMENTS FOR INDUSTRIAL WASTEWATER DISCHARGERS, FOR THE PROHIBITION, REGULATION AND PRETREATMENT OF INDUSTRIAL WASTEWATERS, FOR THE IMPOSITION OF FEES AND CHARGES, FOR THE DISTRIBUTION OF REVENUE, FOR THE IMPLEMENTATION OF FEDERAL AND STATE POLLUTION CONTROL REGULATIONS AND FOR THE IMPLEMENTATION OF OTHER METHODS OF CONTROLLING AND REGULATING THE DISCHARGE OF WASTEWATERS



Sanitation Districts of Los Angeles County

WASTEWATER ORDINANCE

TABLE OF CONTENTS

Sanitation Districts of Los Angeles County

WASTEWATER ORDINANCE

PART I — ADMINISTRATION

SECTION 100—AUTHORIZATION

This Ordinance is enacted pursuant to authority contained in the County Sanitation District Act, California Health and Safety Code, Sections 4700 through 4859 and exercises authority conferred by law including but not limited to Health and Safety Code Sections 5400 through 5474, and California Government Code, Sections 54725 through 54740.

SECTION 101—PURPOSE AND SHORT TITLE

The purpose of this Ordinance is to protect the environment and public health; to provide for the maximum possible beneficial public use of the Districts' sewerage facilities through adequate regulation of sewer construction, sewer use and industrial wastewater discharges; to provide for equitable distribution of the Districts' costs; and to provide procedures for complying with requirements placed upon the Districts by other regulatory agencies. This Ordinance shall be known as the Wastewater Ordinance and may be cited as such.

SECTION 102—SCOPE

This Ordinance shall be interpreted in accordance with the definitions set forth in Appendix A, hereto, which Appendix is hereby incorporated as a part of this Ordinance.

The provisions of this Ordinance shall apply to all direct or indirect discharges, including the discharge

of all wastewater, to any part of the sewerage systems of the Districts, or to other sewerage systems tributary to the Districts' sewerage system. The provisions of this Ordinance shall apply to wastewater originating outside the territorial boundaries of the Districts or outside the boundaries of Los Angeles County if such wastewater eventually enters the Districts' sewerage system. This Ordinance among other things regulates sewer construction and provides for the approval of plans for sewer construction and implements federal and state pollution control regulations. This Ordinance provides for the issuance of permits, including Permits for Industrial Wastewater Discharge, prohibits the discharge of certain wastes and regulates the quantity and quality of other waste discharges. This Ordinance imposes wastewater pretreatment requirements upon waste dischargers and provides for the regulation of the degree of such pretreatment. This Ordinance provides for the filing of Wastewater Treatment Surcharge Statements, imposes fees and charges and provides for the distribution of revenue. Violations of this Ordinance are subject to criminal fines and penalties, civil liabilities and other penalties in accordance with law.

SECTION 103—LIQUID WASTE DISPOSAL POLICY

The Districts construct, operate and maintain trunk sewers and wastewater treatment and disposal facilities serving residential, industrial, institutional and commercial users throughout a major portion of Los Angeles County. Local wastewater collection systems (lateral sewers) are constructed, operated and maintained by other public agencies, including the County of Los Angeles and various cities. Such systems are typically tributary to and discharge into the Districts' sewerage systems. The following policies apply to all wastewater discharges within the Districts' boundaries and to other discharges that are tributary to the Districts' facilities.

Wastewater originating within the Districts' boundaries will generally be accepted into the Districts' sewerage systems provided the wastewater will not, directly or indirectly, (1) damage structures, (2) create nuisances such as odors, (3) threaten public health, (4) impose excessive collection, treatment or disposal costs on the Districts, (5) interfere with wastewater treatment or residue disposal processes, (6) violate quality and pretreatment requirements set by the Districts or federal or state agencies, (7) detrimentally affect the environment or (8) cause the Districts to violate any terms or conditions of their facilities' permits or any other waste discharge or air quality requirements.

The highest and best use of the Districts' sewerage systems is the conveyance, treatment and disposal of domestic wastewater. The use of the Districts' sewerage systems for conveyance, treatment and disposal of industrial wastewater is subject to additional regulation by the Districts.

The use of the Districts' sewerage systems for disposal of contaminated or uncontaminated rainwater, groundwater or stormwater will be permitted by prior approval of the Chief Engineer only in those limited situations provided for in Section 305 of this Ordinance. Approval of any such use will be temporary in nature and may be revoked at any time by the Chief Engineer.

The Districts' sewerage systems must meet requirements imposed by the local, state and federal governments. Such regulations require the Districts to report violations of applicable waste discharge regulations which are discovered by the Districts in the course of their monitoring, inspection or other activities. Any fines or penalties imposed by another governmental agency on the Districts for a condition of noncompliance caused by a wastewater discharger shall be considered damages to the Districts and shall subject the person or persons causing the

noncompliance to be subject to the provisions of Section 417 of this Ordinance.

The Districts have adopted a policy of wastewater reclamation and reuse in order to provide an alternate source of water supply and to reduce overall costs of wastewater treatment and disposal. The reclamation of wastewater through secondary and tertiary wastewater treatment processes may necessitate the imposition of quality requirements on industrial wastewater dischargers which are more stringent than those imposed by other government agencies.

To comply with local, state and federal requirements and to meet increasingly higher quality standards for treatment plant effluent, air emissions and residue, provisions are made in this Ordinance for the regulation of industrial wastewater discharges. This Ordinance establishes quantity and quality limitations on industrial wastewater discharges which may adversely affect the Districts' sewerage systems or the quality of treatment plant effluent, air emissions and residue. Methods of cost recovery from industrial wastewater dischargers are also established.

Recovery, reuse and waste minimization procedures established by industrial wastewater dischargers to meet the limitations set on their discharges will be preferred by the Districts over those procedures designed solely to meet wastewater discharge limitations.

In order to provide for the optimum use of the Districts' facilities, the Chief Engineer shall establish conditions of discharge which may include the rerouting of certain wastewaters to alternate sewers or treatment plants. The Chief Engineer may also require that certain industrial wastewaters be discharged during specified periods, such as low flow, in the Districts' sewerage systems.

SECTION 104—SUPERSEDING PREVIOUS REGULATIONS

This Wastewater Ordinance, as amended November 1, 1989, shall supersede all previous regulations and policies of the Districts governing items covered in this Ordinance. Specifically, the provisions of this Ordinance shall supersede the Districts' "Policy Governing Use of District Trunk Sewers" dated December 6, 1961, and shall amend the Districts' "An Ordinance Regulating Sewer Construction, Sewer Use and Industrial Wastewater Discharges," dated April 1, 1972, and as amended July 1, 1975, July 1, 1980 and July 1, 1983.

PART II—GENERAL PROVISIONS

SECTION 201—ADMINISTRATION

Except as otherwise provided herein, the Chief Engineer shall administer, implement and enforce the provisions of this Ordinance. Any powers granted to or duties imposed upon the Chief Engineer may be delegated by the Chief Engineer to persons acting in the beneficial interest of or in the employ of the Districts.

SECTION 202—PENALTY FOR VIOLATION AND CIVIL LIABILITY

Every person violating any provision of this Ordinance, including the failure to pay any fees, charges or surcharges imposed hereby, or any condition or limitation of a permit or plan approval issued pursuant thereto, is guilty of a misdemeanor, and upon conviction is punishable as provided by law. Each day during which any violation continues shall constitute a separate offense. The Chief Engineer is hereby authorized to seek, through the office of the District Attorney of Los Angeles County or other appropriate authority, prosecution of criminal charges against any person violating any provision of this Ordinance. Violations of discharge limitations established under this Ordinance may also be violations of state and federal environmental laws which may be punishable as felonies and which may also carry substantial fines and penalties.

In addition, any person who violates any provision of this Ordinance or any term or condition of any permit issued pursuant to this Ordinance or plan approval which prohibits or limits the discharge of any waste or imposes any pretreatment requirement shall be civilly liable to the Districts in the maximum sum provided by law for each day in which such violation occurs.

District No. 2 is hereby delegated the sole authority to, and by action of its Board of Directors may, elect to have any fees or charges prescribed by this Ordinance collected on the tax roll, and may, as provided by law, impose liens on property to collect any fees and charges which have become delinquent. District No. 2 is further delegated the sole authority to commence civil actions to enforce the provisions of this Ordinance and to recover any sums due hereunder and may further delegate such portions of that authority to the Chief Engineer as the Board of Directors of District No. 2 may deem appropriate. District No. 2 may agree to submit such actions to binding arbitration in those instances in which the Board determines that it is in the best interest of the Districts to do so.

SECTION 203—VALIDITY

If any provision of this Ordinance or the application thereof to any person or circumstances is held invalid, the remainder of the Ordinance and the application of such provisions to other persons or circumstances shall not be affected thereby.

SECTION 204—NOTICE

Unless otherwise provided herein, any notice required to be given by the Chief Engineer under this Ordinance shall be in writing and served in person or by first-class, registered or certified mail. If served by mail, the notice shall be sent to the last address known to the Chief Engineer. Where the address is unknown, service may be made upon the owner of record of the property upon which the alleged violation occurred.

Notice shall be deemed to have been given at the time of deposit, postage prepaid, in a facility regularly serviced by the United States Postal Service.

SECTION 205–TIME LIMITS

Any time limit provided in any written notice or in any provision of this Ordinance may be extended only by the Chief Engineer in writing.

SECTION 206–INSPECTORS AND MONITORING PERSONNEL

The Chief Engineer shall provide adequate identification for all Districts' inspectors, monitoring personnel, and other authorized personnel and these persons shall, when so requested, identify themselves when entering any property for inspection or sampling purposes, or when inspecting the work of any contractor.

Authorized personnel of the Districts may inspect and monitor any facility or industrial process that is involved directly or indirectly with any discharge to the Districts' sewerage systems. These facilities shall include but not be limited to sewers; wastewater pumping plants; pollution control plants; industrial wastewater generation, conveyance and pretreatment facilities, devices and connection sewers; wastewater monitoring facilities or stations; and all similar or related sewerage facilities. Inspections may be made to determine whether such facilities are maintained and operated properly, to verify that the discharger is in compliance with a cease and desist order, and to determine whether the discharger is otherwise in compliance with the provisions of this Ordinance.

Authorized personnel of the Districts shall be provided immediate access to all of the above facilities or to other facilities directly or indirectly connected to the Districts' sewerage systems any time wastewater is being discharged to the Districts' sewerage system, any time the discharger's facility

is open or operating, and any other reasonable times including, but not limited to, emergency situations. A condition for the issuance of any industrial waste permit described in Sections 401 and 402 of this Ordinance and for the continued use of the Districts' sewerage system shall be that the discharger expressly consents to inspection of the discharger's facilities and industrial processes at reasonable times by Districts' personnel or representatives. Inspections of other facilities for which no permit has been applied or issued may be made with a warrant duly issued pursuant to the procedures set forth in Title 13 (commencing with Section 1822.50) of Part 3 of the Code of Civil Procedure provided, however, that in the event of an emergency affecting public health and safety, or if the discharger consents, such inspection shall be made without the issuance of a warrant.

Access to wastewater monitoring facilities or stations, which are required under Section 414 of this Ordinance, shall be granted immediately upon request during any time the discharger's plant is open, any time wastewater is being discharged to the Districts' sewerage system, and any other reasonable time. Any permanent or temporary obstruction to the safe and easy access to the sewerage facility to be inspected shall promptly be removed by the discharger or property owner at the written or verbal request of the Chief Engineer and shall not be replaced. Classes of dischargers whose industrial wastewaters have been determined by the Chief Engineer to present identifiable hazards to the Districts' sewerage systems, and those individual dischargers whose security procedures or plant configurations restrict or delay access shall provide an approved secured monitoring facility which is directly accessible to Districts' personnel without having to pass through other secured property of the discharger. The costs of providing facilities with such access shall be borne by the discharger and not by the Districts.

No person shall interfere with, delay, resist or refuse entrance to authorized Districts' personnel attempting to inspect any facility involved directly or indirectly with a discharge of wastewater to the Districts' sewerage system.

SECTION 207—DELETED

SECTION 208—RECORDING OF FEES AND CHARGES

The Chief Engineer shall keep an accurate account of all fees and charges received under this Ordinance, containing the names and addresses of the persons on whose account the fees and charges were paid, the date and amount thereof, and the purpose for which charges were paid.

SECTION 209—ESTIMATED QUANTITIES AND VALUES

Unless otherwise provided herein, whenever the fees and charges required by this Ordinance are based on estimated values or estimated quantities, the Chief Engineer shall make such determinations in accordance with generally accepted engineering estimating practices.

SECTION 210—COMPLIANCE WITH STATE AND FEDERAL REGULATIONS

The Chief Engineer shall establish standards for wastewaters discharged into the Districts' sewerage system or systems tributary thereto in accordance with state law and Federal Regulations, as they are promulgated from time to time. Violations of such standards shall constitute violations of this Ordinance.

SECTION 211—APPROVAL OF PLANS AND ISSUANCE OF PERMITS

The Chief Engineer shall approve plans for sewerage construction, issue a Permit for Industrial Wastewater Discharge or any other permit under this Ordinance if the proposed sewerage construction, sewer connection, industrial wastewater discharge or other procedure conforms to the requirements of this Ordinance.

All required fees and charges shall be paid before approval of plans or issuance of a permit. Neither the approval of plans nor issuance of a permit, nor the absence thereof, shall relieve the discharger of any duty imposed by this Ordinance.

SECTION 212—DISTRIBUTION OF REVENUE

Except as otherwise provided herein, all fees and charges payable under the provisions of this Ordinance shall be paid to the County Sanitation Districts of Los Angeles County and any revenue derived pursuant to this Ordinance shall be allocated as follows:

(A) Any revenue derived from any source within an individual District other than a Joint Outfall District shall be credited to that District.

(B) Any revenue derived from any source within the Joint Outfall Districts shall be distributed as prescribed in the Joint Outfall Agreement to which all Joint Outfall Districts are signatory. In the absence of such agreement, revenue shall be distributed as described in (A) above.

SECTION 213—RECONSIDERATION AND APPEAL PROCEDURES

Any permit applicant, permit holder or wastewater

discharger adversely affected by any decision, action or determination made by or on behalf of the Districts by the Chief Engineer in interpreting or implementing the provisions of this Ordinance or any permit issued hereunder, may file with the Districts a written request for reconsideration. Such requests shall be acted upon only if received within 45 days of the date of occurrence of the action in dispute. Requests for reconsideration shall be acted upon by the Chief Engineer within 45 days from the date of receipt. If the Chief Engineer fails to act within 45 days the request shall be deemed to be denied. Persons requesting reconsideration shall promptly furnish all additional information and produce all additional documents requested by the Chief Engineer which are relevant to the subject matter of the request for reconsideration. Failure to promptly furnish all such information and documents shall be grounds for a denial of the request for reconsideration.

If the ruling made by the Chief Engineer is unsatisfactory to the person requesting reconsideration, the person may file an appeal with the Board of Directors of District No. 2. Any such appeal must be made in writing and filed within 45 days after notice of the action taken by the Chief Engineer. If the request is denied without action by the Chief Engineer, the person making the request must file any appeal within 90 days from the date the request for reconsideration was made. All appeals shall be filed with the Secretary of the Board of Directors of District No. 2.

The written appeal shall state all the pertinent aspects of the matter, and shall be accompanied by a fee of Five Hundred Dollars ($500.00) which shall be refunded if the appeal is sustained. The Board of Directors of District No. 2 may conduct a hearing on the appeal or may designate as a hearing examiner either one or more of its members or a third party who is neither an officer nor an employee of the Districts and who is found by the Board to possess special expertise in the matter at issue. The hearing examiner

or examiners shall conduct a hearing on any appeal filed pursuant to this section and shall afford to the discharger the opportunity to appear personally or through counsel, to cross-examine witnesses and present evidence. Notice of the hearing shall be given in accordance with Section 204 at least fifteen days prior to the date of hearing. The hearing examiner or examiners shall submit a written report and recommendations to the Board together with a brief summary of the evidence considered and the conclusions reached with respect to this evidence.

The Board of Directors of District No. 2, after considering the evidence presented at a hearing before the full Board or report submitted to it by the hearing examiner, shall adopt findings supported by the evidence and shall make its decision and issue its order. The Board may adopt, reject or modify the report of the hearing examiner in whole or in part.

No decision, action, or determination of the Chief Engineer shall be stayed by any appeal procedure authorized by this section.

SECTION 214—PAYMENT OF CHARGES AND DELINQUENT CHARGES

Wastewater treatment surcharges shall be determined in accordance with Section 409 by self-monitoring procedures performed by the industrial discharger pursuant to Section 414 and reported to the Districts as required by Section 411. Except as hereinafter provided, each industrial discharger shall make estimated surcharge payments to the Districts. Payments shall be due and payable on September 30, December 31, March 31, and August 15 of each year. Such payments shall be delinquent if not paid on said dates and collectively shall be in such amounts as shall equal the total surcharge payable as determined in accordance with procedures established by the Chief

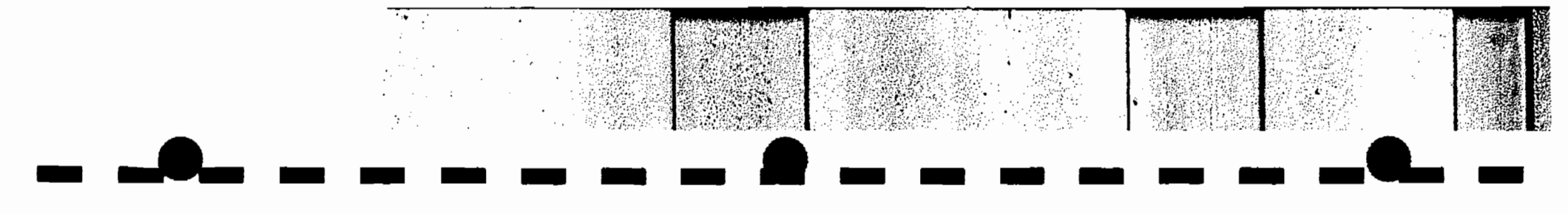
shall equal the total wastewater treatment surcharge due for the preceding fiscal year less the sum of the prepayments due and made on September 30, December 31 and March 31 of the preceding fiscal year. In the event the sum of the prepayments exceeds the annual wastewater treatment surcharge due, the overpayment shall be refunded upon verification by the Districts. Wastewater treatment surcharges found to be due after audit shall bear interest from August 15 following the end of the fiscal year for which such surcharges accrued.

All other fees and charges imposed under the provisions of this Ordinance are due and payable upon serving a notice of charges. Any notice of charges shall be served by first-class mail or such other procedure as will reasonably assure receipt. Unpaid charges shall become delinquent 45 days after mailing or personally serving the notice of charges.

A basic penalty of 10 percent of the original unpaid amount shall be added to any fee or charge or wastewater surcharge that becomes delinquent. Additional penalties and interest at the maximum rate provided by law shall accrue on the total of all delinquent fees, charges or wastewater surcharges and the basic penalty.

SECTION 215—FAILURE TO FILE FORMS

Any person failing to file any form, statement, or permit application, or to submit plans or other documents or to provide information required by this Ordinance or by the Chief Engineer pursuant to authority conferred by this Ordinance shall be in violation of this Ordinance and shall be subject to the penalties and liabilities provided for in Section 202.



SECTION 216–DAMAGE TO DISTRICTS' FACILITIES OR EQUIPMENT

Any unauthorized entering, breaking, damaging, destroying, uncovering, defacing or tampering with any temporary or permanent structure, equipment, or appurtenance which is owned by the Districts or a part of the Districts' sewerage systems shall be a violation of this Ordinance.

SECTION 217–EFFECTIVE DATE OF ORDINANCE

The effective date of this Ordinance is April 1, 1972; the effective date of the first amended Ordinance is July 1, 1975; the effective date of the second amended Ordinance is July 1, 1980; the effective date of the third amended Ordinance is July 1, 1983; the effective date of the fourth amended Ordinance is November 1, 1989.

SECTION 218–EFFECTIVE DATE OF WASTEWATER TREATMENT SURCHARGE

Charges made under Section 409 shall begin to accrue on July 1, 1972 and shall become payable thereafter as provided in this Ordinance.

PART III—SEWERAGE CONSTRUCTION AND SEWER USE

SECTION 301—APPROVAL OF PLANS FOR SEWERAGE CONSTRUCTION

No person, other than employees of the Districts, persons contracting to do work for the Districts, or maintenance workers of the local sewering agency, shall construct or cause to be constructed, or alter or cause to be altered, any public sewer, lateral sewer, house connection or industrial connection sewer over six (6) inches in diameter, wastewater pumping plant, wastewater treatment plant, or other sewerage facility within the Districts where existing or proposed wastewater flows will discharge directly or indirectly to facilities of the Districts without first obtaining approval of sewerage construction plans from the Chief Engineer.

Persons wishing to make a sewer connection to the Districts' system may be required to pay a connection fee for sewerage system capacity. The Connection Fee Ordinance for the Sanitation District in which the sewer connection is proposed should be reviewed for specific requirements.

The applicant shall submit to the Chief Engineer for approval, construction plans and such specifications and other details as required to describe fully a proposed sewerage facility. The plans shall have been prepared under the supervision of and shall be signed by a civil, chemical or structural engineer registered in the State of California, or a registered engineer of other suitable discipline as determined by the Chief Engineer.

Approval of the plans by the city or by the county department that has jurisdiction over the local sewering system in the area in which the sewerage facility is to be located, shall be obtained before approval of

plans by the Chief Engineer. Two (2) complete copies of the sewerage facility plans shall be furnished to the Chief Engineer for review and approval prior to any facility construction. Any revisions to approved plans shall be submitted for approval as described above.

Plans for sewerage construction for any facility which will convey industrial wastewater will not be approved by the Chief Engineer unless the discharger has first obtained a Districts' Permit for Industrial Wastewater Discharge or the discharger has received written permission from the Chief Engineer after agreeing not to discharge industrial wastewaters until a Districts' Permit for Industrial Wastewater Discharge is obtained.

Plans for sewerage construction shall meet all design requirements of the local sewering agency and shall also meet all design requirements as established from time to time by the Chief Engineer. Inspection of all sewerage construction under this Section shall be made by personnel of the Districts in the manner described in Section 303. An approval of plans for sewerage construction shall expire one (1) year after date of approval unless construction has been initiated by that time.

SECTION 302–PERMIT FOR SEWER SIX INCHES OR SMALLER IN DIAMETER CONNECTING DIRECTLY TO A TRUNK SEWER OF THE DISTRICTS

Any person desiring to connect a sewer six (6) inches or smaller in diameter directly to a trunk sewer of the Districts shall make written application to the Chief Engineer on a Districts' Trunk Sewer Connection Permit application form. The applicant shall complete the form and furnish such additional information as required by the Chief Engineer to substantiate that the proposed work or use will comply with the provisions

A Trunk Sewer Connection Permit will not be issued unless the applicant has first obtained approval from the local sewering agency in the area in which the property is located. A Trunk Sewer Connection Permit will not be issued for any sewer which will convey industrial wastewater unless the discharger has first obtained a Districts' Permit for Industrial Wastewater Discharge.

Direct connection of a sewer six (6) inches or smaller in diameter to a Districts' trunk sewer will be permitted only if the Chief Engineer determines that a suitable local sewer is not available, that adequate trunk sewer capacity exists, that the connection will function properly and that the connection will not adversely affect existing or anticipated facilities or operations of the Districts.

Sewers six (6) inches or smaller in diameter to be connected directly to a Districts' trunk sewer shall be constructed in a manner and at the location specified by the Districts. Inspection of the connections to a trunk sewer shall be made by personnel of the Districts in the manner described in Section 303.

No sewer exceeding six (6) inches in diameter shall be connected directly to a Districts' trunk sewer without the prior approval of plans for sewerage construction, in accordance with Section 301 of this Ordinance.

A Districts' Trunk Sewer Connection Permit shall expire 120 days after issuance unless construction of the connection has been initiated by that time. A permit will not be required from the Districts for connection of a sewer six inches or smaller in diameter which does not connect directly to a trunk sewer, providing the sewer will not carry industrial wastewaters.

SECTION 303—INSPECTION OF CONSTRUCTION

All sewers to be connected directly to a Districts' trunk sewer will be inspected by personnel of the Districts during construction. The Districts shall be notified at least 48 hours prior to excavating to expose a Districts' sewer or commencing construction of a manhole on a Districts' sewer. In making a connection to a Districts' trunk sewer, no physical alteration of the Districts' facilities shall commence until a Districts' inspector is present.

Sewerage facilities which will not be directly connected to a Districts' sewer will not be inspected routinely by the Districts during construction. Upon completion of construction and prior to removal of the downstream bulkhead and upon receiving 48 hours notice, the Districts will inspect the work to determine if it has been constructed in a satisfactory manner and to determine if all facilities are cleaned of construction debris that could be flushed into the Districts' sewers.

No wastewater shall be discharged into any sewerage facility tributary to a Districts' facility prior to obtaining inspection and approval of sewerage construction by the Districts.

Following satisfactory completion of construction, the Districts will, if requested, issue a construction inspection completion statement.

SECTION 304—PLAN APPROVALS AND PERMITS NOT TRANSFERABLE

Approval of plans for sewerage construction and Trunk Sewer Connection Permits are not transferable from one person to another person or from one location to another location.

INDEX TO WASTEWATER ORDINANCE [a]

[a] This index is not technically part of the Ordinance, but has

SECTION A-60–WASTEWATER

"Wastewater" shall mean the liquid-carried wastes of the community and all constituents and residues thereof. Wastewater includes domestic and industrial wastewater but does not include rainwater, groundwater, stormwater or drainage of other water.

SECTION 305–PROHIBITED RAINWATER, GROUNDWATER AND OTHER WATER DISCHARGES

No person shall discharge or cause to be discharged any contaminated or uncontaminated rainwater, stormwater, groundwater, artesian well water, street drainage, yard drainage, water from yard fountains, ponds or lawn sprays into any sewerage facility which directly or indirectly discharges to facilities owned by the Districts, except where prior approval for such discharge of water is given by the Chief Engineer. Approved discharges shall be considered industrial wastewater discharges under this Ordinance. Any such approval may be revoked at any time by the Chief Engineer.

SECTION 306–PROHIBITED INDUSTRIAL WASTEWATER DISCHARGE

No industrial wastewaters shall be discharged to a Districts' trunk sewer or to a sewer discharging directly or indirectly to a Districts' trunk sewer until a Permit for Industrial Wastewater Discharge has been approved by the Districts.

SECTION 307–MANHOLE RECONSTRUCTION NOTIFICATION

The work of adjusting manholes on Districts' sewers to new elevations will be performed by personnel of the Districts in cooperation with the paving contractor and in accordance with established procedures of the Districts. The person proposing or performing work necessitating the adjustment of manholes on Districts' sewers to a new elevation shall be responsible for notifying the Districts at least 48 hours in advance of the work.

SECTION 308–IMPROPER USE OF CONNECTED SEWERS

The Districts may inspect any lateral or collecting sewers that discharge wastewater directly or indirectly to Districts' trunk sewers. If the Chief Engineer determines that the improper use, maintenance, or construction of a lateral or collecting sewer causes or contributes to the discharge of septic wastewater, excessive groundwater, debris or any other objectionable substance to the Districts' sewers, the Chief Engineer may give notice of the unsatisfactory condition to any discharger contributing to such condition and to the local sewering agency responsible for the maintenance of such sewer, and shall direct that the condition be corrected. In the event of a failure to comply with the Chief Engineer's directive, the Districts may disconnect such lateral or collecting sewer from the Districts' sewerage system.

SECTION 309–CHARGE FOR EXCESSIVE SEWER MAINTENANCE

No person shall discharge or cause to be discharged to a Districts' trunk sewer, either directly or indirectly, any waste that obstructs, interferes with, or otherwise requires excessive maintenance of any Districts' sewer or sewerage facility, including any waste that creates a stoppage or breakage, any toxic, hazardous or odorous condition, or any damage or deterioration of any Districts' sewer or sewerage facility. Any excessive sewer or sewerage maintenance expenses or reconstruction costs including administrative costs attributable thereto shall be charged to the discharger causing or contributing to such conditions. Any refusal to pay such charges shall constitute a violation of this Ordinance.

SECTION A-55–STORMWATER

"Stormwater" shall mean the volume of water following a storm which runs off or travels over the ground surface to a drainage area or channel.

SECTION A-56–SUSPENDED SOLIDS

"Suspended solids" or "suspended matter" shall mean the insoluble solid matter suspended in wastewater under conditions normally found in sewers that is separable by laboratory filtration in accordance with the procedure described in Standard Methods.

SECTION A-57–TRADE SECRETS

"Trade secrets" shall include but shall not be limited to any formula, plan, pattern, process, tool, mechanism, compound, procedure, production data, or compilation of information which is patented, which is known only to certain individuals within a commercial concern who are using it to fabricate, produce, or compound an article of trade or a service having commercial value and which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it. Trade secrets shall not include industrial wastewater effluent data.

SECTION A-58–TRUNK SEWER

"Trunk sewer" shall mean a sewer constructed, maintained and operated by the Districts that conveys wastewater to Districts' treatment facilities and into which lateral and collecting sewers discharge.

SECTION A-59–USER

"User" shall mean discharger, see Section A-11.

SECTION A-50–SHALL & MAY

"Shall" is mandatory and "may" is permissive.

SECTION A-51–SIGNIFICANT VIOLATORS

"Significant Violators" shall mean industrial users who were found to be significantly violating applicable pretreatment standards or other pretreatment requirements. A significant violation is defined as a violation which remains uncorrected 45 days after notification of noncompliance, or uncorrected after a time period as otherwise specified by EPA, which is part of a pattern of noncompliance over a twelve-month period, which involves a failure to accurately report noncompliance, or which resulted in the Districts exercising its emergency authority.

SECTION A-52–SOLID WASTES

"Solid wastes" shall mean the nonliquid-carried wastes normally considered to be suitable for disposal with refuse at sanitary landfill refuse disposal sites.

SECTION A-53–SPILL CONTAINMENT SYSTEM

"Spill Containment System" shall mean a system of dikes, walls, barriers, berms, or other devices designed to contain a spillage of the liquid contents of containers.

SECTION A-54–STANDARD METHODS

"Standard Methods" shall mean the most current edition of *Standard Methods for the Examination of Water and Wastewater* as published by the American Public Health Association.

PART IV–INDUSTRIAL WASTEWATERS

SECTION 401–PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE

Except as hereafter provided, no person shall discharge or cause to be discharged any industrial wastewaters directly or indirectly to sewerage facilities owned by the Districts without first obtaining a Districts' Permit for Industrial Wastewater Discharge (Permit). A Districts' Permit shall be obtained prior to commencement of any construction of new or modified facilities which will discharge industrial wastewater to the sewer. A separate Permit shall be required for each industrial wastewater connection to a public sewer discharging directly or indirectly to the Districts' sewerage system. The use of a sewer connection which is the subject of a Districts' Permit by anyone other than the person named in the Permit is prohibited. A Permit or Permit revision shall also be obtained by dischargers who use transportable treatment systems for pretreatment of industrial wastewater. Any person who operates a transportable treatment system must receive written authorization from the Chief Engineer prior to commencement of operations at any industrial facility. Any person operating a transportable treatment system shall comply with all requirements established by the Chief Engineer for such systems. A Permit shall also be obtained by all persons generating industrial wastewater, other than hauled domestic wastewater, which enters the Districts' sewerage system by means of liquid waste haulers.

The Chief Engineer may exempt certain classes of dischargers of industrial wastewaters from the requirement to obtain a Permit if the quantity and quality of the wastewater is determined to be unlikely to create significant effects on the Districts' sewerage system or produce violations of state law or Federal Regulations.

The Permit may require pretreatment of industrial wastewaters before discharge, restriction of peak flow discharges, discharge of certain wastewaters only to specified sewers of the Districts, relocation of point of discharge, consolidation of wastewater discharge connections, prohibition of discharge of certain wastewater components or characteristics, batch treatment and discharge, restriction of discharge to certain hours of the day, and such other conditions as may be required to effectuate the purposes of this Ordinance. The Permit may also require payment of additional charges to defray increased costs of the Districts created by the wastewater discharge and payment of equivalent connection fees, equivalent annexation fees or other equivalent charges for dischargers not located within the Districts (or who, historically, have not been subject to the Districts' normal revenue charges).

Permits for facilities that receive for treatment, recycling or reclamation one or more wastes generated off-site, may additionally require monitoring of influent wastestreams and may restrict the types and quantities of wastes accepted.

The Districts' Permit is not transferable to a new business location or to a new business. Each discharger shall immediately notify the Districts in writing of any change in the name or legal capacity of the discharger. The Permit shall be voidable by the Chief Engineer upon non-use, cessation of operations, transfer of business ownership, or the issuance of a new Permit for the same sewer connection.

No person shall discharge industrial wastewaters in excess of the quantity or quality limits stated in the Permit. The violation of any Permit condition or requirement shall constitute a violation of this Ordinance and shall be punishable as provided by law. Any person who, as defined by the Chief Engineer, significantly increases or decreases flow rate or significantly

SECTION A-46–SEWER CAPACITY ENTITLEMENT

"Sewer Capacity Entitlement" shall mean the number of capacity units existing at a specific property location as determined on the basis of the current Connection Fee Ordinance for the District within which the specific property is located. A capacity unit is the burden that a typical single family home places on the sewerage system in terms of wastewater flow and strength.

SECTION A-47–SEWER CONNECTION FEE

"Sewer connection fee" shall mean the fee established by the Connection Fee Ordinance of the District in which the specific property is located. Connection Fee Ordinances establish varying fees for the privilege of connecting a property parcel of land to the Districts' sewerage system. The connection fee charges are established based upon the wastewater quantity and strength.

SECTION A-48–SEWERAGE

"Sewerage" shall mean any and all facilities used for collecting, conveying, pumping, treating and disposing of waste and wastewater.

SECTION A-49–SEWERAGE SYSTEM

"Sewerage system" shall mean a network of waste and wastewater collection, conveyance, treatment and disposal facilities interconnected by sewers, and owned by the Districts, except with respect to those Districts that do not own, in whole or in part, wastewater treatment or disposal facilities in which event it shall mean a network of wastewater collection and conveyance facilities.

SECTION A-39—RAINWATER

"Rainwater" shall mean the volume of water resulting from precipitation which directly falls on a parcel.

SECTION A-40—RESIDUE

"Residue" shall mean the settleable solids and semi-liquid suspension of solids separated from the liquid fraction of wastewater during treatment. These solids shall include, but not be limited to: compost, filter cake, sludge, centrate and centrifuged solids.

SECTION A-41—REVENUE OR APPROPRIATE REVENUE

"Revenue" or "Appropriate Revenue" shall include revenue from the sale of by-products, investment income, annexation fees, connection fees, grants, gifts, donations, ad valorem tax allocations, and from other miscellaneous sources.

SECTION A-42—SANITARY FLOW

"Sanitary Flow" shall mean the same as the term Domestic Wastewater. See Section A-15.

SECTION A-43—SECTION

"Section" shall mean a section of this Ordinance.

SECTION A-44—SEWAGE

"Sewage" shall mean wastewater.

SECTION A-45—SEWAGE PUMPING PLANT

"Sewage pumping plant" shall mean any facility designed and constructed to raise wastewater in elevation or to overcome head losses due to pipe-line friction.

immediately apply for and obtain a Permit revision. Any discharger who modifies an industrial plant, operating mode, process, or wastewater treatment facility in a manner which, as defined by the Chief Engineer, would significantly increase or decrease the flow rate or significantly alter the quality of the wastewater discharge described in a Permit or Wastewater Treatment Surcharge Statement shall first apply for and obtain a Permit revision. This Permit revision shall be obtained prior to the commencement of any construction of new plant facilities or operation of modified facilities by the wastewater discharger.

As a condition of the Districts' issuance of a Permit, each discharger shall agree that upon receipt of a Notice of Suspension under Section 404 of this Ordinance or upon receipt of a Notice of Revocation under Section 405 of this Ordinance, such discharger shall immediately cease and desist the direct or indirect discharge of all industrial wastewater to the Districts' sewerage system. As a further condition of the issuance of a permit, it shall be agreed that, upon application by District No. 2, any court of competent jurisdiction may enter a temporary restraining order and preliminary and permanent injunction restraining any discharges in violation of this Ordinance.

SECTION 402—PROCEDURE FOR OBTAINING A DISTRICTS' PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE

Applicants for a Permit for Industrial Wastewater Discharge shall complete a Districts' application form available at the Districts' offices or at the office of the local sewering agency having jurisdiction in the area in which the discharge is to be made. Following approval, the local sewering agency shall forward the application form and appurtenant plans and data to the Districts for review and approval. The Districts may require additional information from the discharger

beyond that required on the application form. Detailed instructions for obtaining a Permit are contained in the Districts' booklet, "Information and Instructions for Obtaining an Industrial Wastewater Discharge Permit" which can be obtained at the Districts' offices or at the office of the local sewering agency. Applicants for permits shall comply with all such instructions.

Upon receipt of all required information, the Districts will determine whether the discharger is obligated to pay a connection fee. This fee shall be paid to the Districts before the Permit is issued. Dischargers shall be assigned a single surcharge account and a single sewer capacity entitlement for all contiguous property even though individual permits may be issued for separate connections from such property. After all information and fees are received, the application shall be processed and, upon approval, be signed by representatives of both the local sewering agency and the Districts, and one copy returned to the applicant. When properly signed, the application form together with any documents attached thereto shall constitute a valid Permit.

The application shall be approved if the applicant has complied with all applicable requirements of this Ordinance and furnished to the Districts all requested information and if the Chief Engineer determines that there is adequate capacity in the Districts' facilities to convey, treat and dispose of the wastewaters. Dischargers shall comply with all terms, conditions, limitations, requirements and instructions contained in their Permit. Violations of Permit terms, conditions, limitations, requirements and instructions including any Federal Pretreatment Standards or any effluent limits adopted by the Districts or required by state law, shall be enforceable as violations of this Ordinance, and shall be punishable as provided by law.

In the event that the Chief Engineer determines that

SECTION A-33—ORDINANCE

"Ordinance" shall mean, unless otherwise specified, this Ordinance.

SECTION A-34—PEAK FLOW RATE

"Peak flow rate" shall mean the average rate at which wastewater is discharged to a public sewer during the highest 30-minute flow period during the accrual period.

SECTION A-35—PERSON

"Person" shall mean any individual, partnership, committee, association, corporation, public agency, and any other organization or group of persons, public or private.

SECTION A-36—PUBLIC CORPORATION

"Public corporation" shall mean this state and any political subdivision thereof, any incorporated municipality therein, any public agency of the state or any political subdivision thereof, or any corporate municipal instrumentality of this state.

SECTION A-37—PUBLIC SEWER

"Public sewer" shall mean any sewer dedicated to public use and whose use is controlled by a public corporation.

SECTION A-38—RADIOACTIVE MATERIAL

"Radioactive material" shall mean material containing chemical elements that spontaneously change their atomic structure by emitting any particles, rays or energy forms.

SECTION A-28—GRAVITY SEPARATION INTERCEPTOR

"Gravity separation interceptor" shall mean any facility designed, constructed and operated for the purpose of removing and retaining dangerous, deleterious or prohibited constituents from wastewater by differential gravity separation before discharge to the public sewer.

SECTION A-29—LATERAL SEWER, COLLECTING SEWER OR MAIN LINE SEWER

"Lateral sewer," "collecting sewer" or "main line sewer" shall mean the public sewer usually eight (8) inches or larger in diameter and used to collect wastewater from house connection and industrial connection sewers and transport it to trunk sewers. Lateral, collecting or main line sewers are normally built and maintained by the local sewering agency.

SECTION A-30—LOCAL SEWERING AGENCY

"Local sewering agency" shall mean the city or county or other public agency legally authorized to construct, maintain and operate a system of lateral or collecting sewers.

SECTION A-31—NET CAPITAL

"Net Capital" shall mean the total anticipated capital contribution of a District for the accrual year less all anticipated grants, gifts, and donations.

SECTION A-32—NONCONVENTIONAL INDUSTRIAL WASTEWATER CONSTITUENT

"Nonconventional industrial wastewater constituent" shall mean any chemical or compound other than COD and Suspended Solids.

or indirectly to the Districts' sewerage system without a valid Permit, the Chief Engineer may issue to such person a Temporary Permit for Industrial Wastewater Discharge (Temporary Permit) containing such conditions, limitations, restrictions, and other provisions or requirements which the Chief Engineer determines are necessary or advisable to protect the Districts' system and to assure compliance with all federal, state and Districts' discharge requirements. This Temporary Permit shall be enforceable until such time as a Permit can be issued. The discharger shall immediately comply with all of the provisions and requirements of such Temporary Permit, and shall apply for a Permit within thirty (30) days from the issuance of the Temporary Permit. A Temporary Permit is revocable by the Chief Engineer at any time. Any person whose Temporary Permit is revoked shall immediately cease and desist all discharge of any industrial wastewaters.

SECTION 403—CHANGE OF RESTRICTIONS IN PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE

The Chief Engineer may upon reasonable notice to the discharger change or modify the restrictions or conditions of a Permit from time to time to effectuate the purposes of this Ordinance. Alternatively, the Chief Engineer may require the discharger to apply for a new or revised Permit. The Chief Engineer shall allow an industrial discharger a reasonable period of time to comply with any changes required in the Permit.

SECTION 404—SUSPENSION OF PERMITS ISSUED UNDER THIS ORDINANCE

The Chief Engineer may suspend any permit issued under the authority of this Ordinance for a period of not to exceed forty-five (45) days when such suspension is necessary in order to stop a discharge which presents an imminent hazard to the public health,

safety or welfare, to the environment, to the local sewering agency's system, or to the Districts' sewerage system.

Any discharger notified of a permit suspension shall immediately cease and desist the discharge of all industrial wastewater to the sewerage system. In the event of a failure of the discharger to comply voluntarily with the suspension order, the Chief Engineer shall take such steps as are reasonably necessary to insure compliance which may include blocking or severing the discharger's connection to the Districts' system.

Any discharger whose permit is suspended may file with the Chief Engineer a request for a suspension hearing. Such a request shall not stay the suspension. In the event of such request, the Chief Engineer shall, within fourteen (14) days of the receipt of such request, hold a hearing on the suspension and shall either confirm or terminate the suspension.

Reasonable notice of the suspension hearing shall be given to the discharger in the manner provided for in Section 204. At this hearing the discharger whose permit is suspended may appear personally or through counsel, cross-examine witnesses and present evidence. A decision on the suspension shall be made by the Chief Engineer within seventy-two (72) hours after the close of the hearing or the order of suspension shall be stayed until a decision is made either approving or terminating the suspension action. The decision of the Chief Engineer shall be made in writing and shall contain a brief summary of the evidence considered together with a written statement of findings of fact and conclusions of law.

The Chief Engineer shall reinstate the suspended permit upon proof of satisfactory compliance with all discharge requirements of the Districts including all additional permit requirements deemed necessary by the Chief Engineer.

quantity of industrial wastewater to any of the Districts' sewerage systems or any other system tributary thereto.

SECTION A-25—INDUSTRIAL WASTEWATER

"Industrial wastewater" shall mean all liquid carried wastes of the community, excluding domestic wastewater, rainwater, groundwater, stormwater and drainage of contaminated and uncontaminated water. Industrial wastewater may include all wastewater from any producing, manufacturing, processing, institutional, commercial, agricultural, or other operation where the wastewater discharged includes significant quantities of wastes of non-human origin. All liquid wastes hauled by truck, rail, or another means for disposal to the sewer shall be considered as industrial wastewater regardless of the original source of the wastes. Hauled domestic wastewater is included in the category of industrial wastewater.

SECTION A-26—INSPECTOR AND MONITORING PERSONNEL

"Inspector" shall mean a person authorized by the Chief Engineer to inspect wastewater generation, conveyance, processing and disposal facilities. "Monitoring Personnel" shall mean persons authorized by the Chief Engineer to install and operate analytical instruments, sampling equipment, flow meters, and to perform other similar work at wastewater generation, conveyance, treatment and disposal facilities.

SECTION A-27—JOINT OUTFALL DISTRICTS

"Joint Outfall Districts" shall mean those Districts signatory to the current Joint Outfall Agreement.

SECTION A-19—FEDERAL REGULATIONS

"Federal Regulations" shall mean any applicable provision of the Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, Title 33, United States Code, Section 1251 and following, and any regulation promulgated by the United States Environmental Protection Agency under Title 40 CFR implementing that act.

SECTION A-20—FISCAL YEAR

"Fiscal Year" shall mean the twelve-month period beginning on July 1 and ending on June 30 of the following calendar year.

SECTION A-21—FORMULA

"Formula" shall mean the Wastewater Treatment Surcharge Formula as set forth in Section 409.

SECTION A-22—HOUSE CONNECTION

"House connection" shall mean the sewer connecting the building sewer or building waste drainage system to the public sewer for the purpose of conveying domestic wastewater.

SECTION A-23—INDUSTRIAL CONNECTION SEWER

"Industrial connection sewer" shall mean the sewer connecting the building sewer or building waste drainage system to the public sewer for the purpose of conveying industrial wastewater.

SECTION A-24—INDUSTRIAL DISCHARGER OR INDUSTRIAL COMPANY

"Industrial Discharger" or "Industrial Company" shall mean any person who discharges any measurable

The Districts' legal counsel may, upon recommendation of the Chief Engineer, commence and prosecute such legal action as may be appropriate to enforce the provisions of this Section.

SECTION 405—REVOCATION OF PERMITS ISSUED UNDER THIS ORDINANCE

The Board of Directors of District No. 2 may revoke any permit issued under the authority of the Ordinance upon a finding that the discharger has violated any provision of this Ordinance, or any other ordinance adopted by the Districts. No revocation of a Permit, other than a Temporary Permit, shall be ordered until a revocation hearing on the question has been held by the Chief Engineer. At this revocation hearing, the discharger may appear personally or through counsel, cross-examine witnesses, and present evidence. Notice of the revocation hearing shall be given to the discharger in accordance with Section 204 at least fifteen (15) days prior to the date of the hearing. The Chief Engineer may, without prior Board authorization, initiate a permit revocation hearing and action.

If at the conclusion of the revocation hearing, the Chief Engineer recommends revocation of the permit, he shall submit a written report with his recommendation to the Board of Directors of District No. 2 together with a brief summary of the information considered and the conclusions reached. The Board, after considering the information presented at the revocation hearing and the Chief Engineer's report, and any report submitted by the discharger, shall adopt findings supported by the information and may adopt, reject or modify the report in whole or in part and shall make its decision and issue its order.

The decision of the Board of Directors of District No. 2 on whether or not to revoke a permit shall be made in writing and served promptly upon the discharger

in the manner provided in Section 204. The order of the Board may be effective immediately or at a later date as may be specified in such order.

Any discharger whose permit has been revoked shall immediately comply with any order of revocation issued by the Board of Directors of District No. 2 and shall cease and desist all discharges. The Chief Engineer may permanently block or sever any connection to the Districts' sewerage system of any discharger whose permit has been revoked, if such action is necessary to insure compliance with the order of revocation.

Before any further discharge of wastewater may be made by the discharger whose permit has been revoked, the discharger must apply for a new Districts' permit, pay all charges that would be required upon initial application together with all delinquent fees, charges and penalties and such other sums as the discharger may owe to the Districts, excluding any connection fees previously paid. Costs incurred by the Districts, including administrative costs, in revoking the permit and disconnecting the discharger from the Districts' sewerage system shall be paid by the discharger before issuance of a new permit.

SECTION 406—PROHIBITED AND RESTRICTED WASTE DISCHARGES

No person shall discharge or cause to be discharged to the Districts' sewerage systems, or to any public sewer that directly or indirectly connects to the Districts' sewerage systems, any wastes which may have an adverse or harmful effect on sewers, maintenance personnel, wastewater treatment plant personnel or equipment, treatment plant processes or the quality of treatment plant effluent or residue, public or private property, or wastes which may otherwise endanger the public, the environment, or create a public nuisance. No person shall discharge or cause

SECTION A-14—DISTRICT NO. 2

"District No. 2" shall mean County Sanitation District No. 2 of Los Angeles County.

SECTION A-15—DOMESTIC WASTEWATER

"Domestic wastewater" shall mean the water carried wastes produced from non-industrial activities and which result from normal human living processes irrespective of where these wastes are discharged to the sewerage system. The term Domestic Wastewater shall be synonymous with the term Sanitary Flow. See Section A-42.

SECTION A-16—EFFLUENT

"Effluent" shall mean the liquid outflow of any facility designed to treat, convey or retain wastewater.

SECTION A-17—EQUALIZATION TANK

"Equalization Tank" shall mean a container of sufficient capacity to hold a significant portion of an industrial wastewater discharger's daily flow to permit the mixing, prior to discharge to the sewer, of low and high strength wastes that may occur at different times during the day.

SECTION A-18—FEDERAL PRETREATMENT STANDARDS

"Federal Pretreatment Standards" shall mean and include the "National Pretreatment Standard" defined in Title 40, Code of Federal Regulations (CFR), Part 403, Section 403.2(j), and set forth in 40 CFR, Part 403, Section 403.1 and following, and the "National Categorical Pretreatment Standards" set forth in 40 CFR, Chapter I, Subchapter N, Part 405 and following.

companies. Only those parcels having a common boundary, if the public right-of-way is removed, shall be considered to be contiguous.

SECTION A-9—CONTROL MANHOLE

"Control Manhole" shall mean a structure such as a manhole, vault, or other device through which industrial wastewater flows without dilution by domestic wastewaters. A control manhole is intended to act as a flow measurement and wastewater sampling point and shall be adequately designed for these purposes.

SECTION A-10—COUNTY

"County" shall mean the County of Los Angeles.

SECTION A-11—DISCHARGER

"Discharger" shall mean any person that discharges or causes a discharge to a public sewer.

SECTION A-12—DISSOLVED SOLIDS

"Dissolved solids" or "dissolved matter" shall mean the solid matter in solution in the wastewater under conditions normally found in the sewer and shall be obtained by evaporation of a sample from which all suspended matter has been removed by filtration as determined by the procedures in Standard Methods.

SECTION A-13—DISTRICTS

"Districts" shall mean either all or any of the individual County Sanitation Districts of Los Angeles County.

to be discharged to the Districts' sewerage systems, or to any public sewer that directly or indirectly connects to the Districts' sewerage systems, any wastes which adversely affect air quality, adversely affect water reclamation processes or the quality of reclaimed water, cause or contribute to a violation of any requirement of any Districts' facilities permit, any National Pollutant Discharge Elimination System Permit or Waste Discharge requirements, or place the Districts in noncompliance with any of the statutory authorities listed in Title 40, Code of Federal Regulations, Part 403.3(i), or place the Districts in noncompliance with any local, state or federal law including any air quality standard or regulation such as the New Source Performance Standards (set forth in Part 60, Chapter I, Title 40, Code of Federal Regulations), the National Emissions Standards for Hazardous Air Pollutants (set forth in Part 61, Chapter I, Title 40, Code of Federal Regulations), or any standard or regulation promulgated by the California Air Resources Board or the South Coast Air Quality Management District.

Prohibited or restricted wastes described in this section shall not be discharged, processed or stored in such a manner that such wastes could have access to the public sewer. Any prohibited or restricted wastes found in any approved monitoring facility as referred to in Section 414 shall be conclusively presumed to have been discharged to the public sewer and the discharger shall be subject to the enforcement provisions of this Ordinance.

Dischargers shall immediately notify the Districts of the discharge of any prohibited waste, or of the discharge of excessive quantities or concentrations, as defined by the Chief Engineer, of any restricted waste. Dischargers shall also notify the Districts of any circumstances affecting their plant processes or facilities which may potentially result in the discharge of a prohibited waste or of excessive quantities or concentrations, as defined by the Chief Engineer, of any restricted waste, including but not limited to any

malfunction, upset or improper operation of the discharger's plant processes, pretreatment systems, or spill containment facilities, or any diversion or bypass of wastewater. Failure to immediately notify the Districts of any such condition shall be a separate violation of this Ordinance.

No person shall discharge or cause to be discharged to a public sewer, which directly or indirectly connects to the Districts' sewerage systems, the following wastes or wastes in any quantities or concentrations in excess of the following restrictions:

(A) Any gasoline, benzene, naphtha, solvent, fuel oil or any liquid, solid, or gas that would cause or tend to cause flammable or explosive conditions to result in the sewerage system or that would exceed the lower explosive limit established by the Chief Engineer at the approved industrial monitoring location or that would create such conditions in the sewerage system.

(B) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of toxic or poisonous solids, liquids or gases in such quantities that, alone or in combination with other waste substances, may create a hazard for humans, animals or the environment, interfere detrimentally with wastewater treatment processes, cause a public nuisance, or cause any hazardous condition to occur in the sewerage system.

(C) Any waste having a pH lower than 6.0 or having any corrosive or detrimental characteristic that may cause injury to wastewater treatment or maintenance personnel or may cause damage to structures, equipment or other physical facilities of the sewerage system.

(D) Any solids or viscous substances of such size or in such quantity, condition or nature that they may cause obstruction to flow in the sewer or be detrimental to proper wastewater treatment

SECTION A-5—CHIEF ENGINEER

"Chief Engineer" shall mean the Chief Engineer and General Manager of the County Sanitation Districts of Los Angeles County or his duly authorized deputy or agent.

SECTION A-6—COD OR CHEMICAL OXYGEN DEMAND

"COD" or "chemical oxygen demand" shall mean the measure of chemically decomposable material in domestic or industrial wastewaters as represented by the oxygen utilized as determined by the appropriate procedure described in Standard Methods.

SECTION A-7—CONNECTION FEE ORDINANCE

"Connection Fee Ordinance" shall mean an ordinance prescribing fees for the privilege of connecting any parcel within the boundaries of a County Sanitation District of Los Angeles County directly or indirectly to the sewerage system, or for increasing the strength and/or quantity of wastewater attributable to a connected parcel within the District, and providing for the collection of such charges adopted by the various County Sanitation Districts of Los Angeles County as it may be revised from time to time.

SECTION A-8—CONTIGUOUS PROPERTY

"Contiguous Property" shall mean property which is owned or hired by the industrial wastewater discharger, is contiguous to the source of industrial wastewater discharge, and is made up of land parcels with common boundaries or parcels separated only by streets or other publicly owned or operated rights-of-way. Publicly owned rights-of-way include those owned or operated by railroad, pipeline, water, power, electrical, gas, telephone or other public utility

APPENDIX A—DEFINITIONS

The definitions given in this part shall be used in the interpretation of this Ordinance, the issuance of permits, the making of charges for service and all other operations of this Ordinance unless another meaning for the word is apparent from the context.

SECTION A-1—ACCRUAL YEAR

"Accrual Year" shall mean the twelve-month period for which charges shall be determined.

SECTION A-2—ADMINISTRATIVE COSTS

"Administrative Costs" shall include but not be limited to 1) the salaries and overhead administrative costs of all Districts' employees who participated in the investigation, repair, clean-up and/or any other activities related to excessive sewer maintenance or damages incurred by Districts' facilities, or related to enforcement of any Section of this Ordinance, 2) the actual costs of materials and services used including monitoring and laboratory costs, 3) Districts' vehicle expenses used to transport such personnel and equipment and 4) costs for Districts' legal counsel.

SECTION A-3—BOARD

"Board" or "Board of Directors" shall mean the Board of Directors of County Sanitation District No. 2 of Los Angeles County.

SECTION A-4—BOD OR BIOCHEMICAL OXYGEN DEMAND

"BOD" or "biochemical oxygen demand" shall mean the measure of decomposable organic material in domestic or industrial wastewaters as represented by the oxygen utilized over a period of five (5) days at 20° C and as determined by the appropriate procedure in Standard Methods.

plant operations. These objectionable substances include, but are not limited to, asphalt, dead animals, offal, ashes, sand, mud, straw, industrial process shavings, metal, glass, diatomaceous earth, rags, feathers, tar, plastics, wood, whole blood, paunch manure, bones, hair and fleshings, entrails, paper dishes, paper cups, milk containers or other similar paper products whole or ground or materials which tend to solidify in the sewer and obstruct wastewater flow.

(E) Any rainwater, stormwater, groundwater, artesian well water, street drainage, subsurface drainage, roof drainage, yard drainage, water from yard fountains, ponds or lawn sprays or any other contaminated or uncontaminated water except to the extent provided by Section 305.

(F) Any water added for the purpose of diluting wastes which would otherwise exceed applicable maximum concentration limitations.

(G) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of petroleum or mineral-based cutting oils, commonly called soluble oil and which form persistent water emulsions.

(H) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of nonbiodegradable oil, petroleum oil or refined petroleum products.

(I) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of dispersed biodegradable oils, fats and greases, such as lard, tallow or vegetable oil.

(J) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of cyanide.

(K) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of undissolved or dissolved solids.

(L) Any wastes containing excessive quantities or concentrations, as defined by the Chief Engineer, of BOD, COD or other oxygen-demanding substances.

(M) Any wastes containing excessive quantities or concentrations, as defined by the Chief Engineer, of mercaptans, sulfides, phenols, or any strongly odorous material or material tending to create odors.

(N) Any wastes containing dissolved sulfides above a concentration of 0.1 milligram/liter or wastes which contribute to excessive sulfide production, as defined by the Chief Engineer.

(O) Any wastes containing excessive quantities or concentrations, as defined by the Chief Engineer, of dissolved silica, dissolved aluminum, or other substances including high pH material which cause incrustations, scale or precipitates on sewer walls or other similar adverse effects on the sewerage system.

(P) Any substance promoting or causing the promotion of toxic gases.

(Q) Any waste having an excessively high temperature, as defined by the Chief Engineer, any waste having a temperature of 140° F or higher, or which may cause the wastewater influent to a Districts' treatment plant to exceed 104° F.

(R) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of thiosulfate or any other waste constituent which requires chemical applications above levels used in the normal operation of the Districts' sewerage systems.

Industrial dischargers subject to special charges shall perform any additional monitoring and sampling required by the Chief Engineer for the proper assessment of such charges. Such monitoring and sampling shall be performed in accordance with any other specific requirements established by the Chief Engineer for each industrial wastewater constituent subject to special charges. Special charges shall be due and payable upon service of a notice of charges as provided in Section 214, or in accordance with such other billing, reporting and payment procedures established by the Chief Engineer for each such industrial wastewater constituent.

SECTION 424–WASTE DISCHARGE GUIDELINES

The Chief Engineer may from time to time promulgate guidelines for pretreatment systems, spill containment, centralized waste treatment facilities, flow measurement, rainwater disposal, combustible gas monitoring systems, and such other matters as he deems appropriate to effectuate the purposes of this Ordinance. Such guidelines shall be available upon request.

categories of industrial dischargers having similar wastewater characteristics and with respect to which the Chief Engineer has determined that the burden of complying with Sections 411 and 414 is disproportionate to the anticipated revenue to be derived therefrom. Such industrial dischargers may, at the discretion of the Chief Engineer, be required to annually pay a wastewater treatment user charge in lieu of the wastewater treatment surcharge provided for by Section 409. Wastewater treatment user charges shall be due and payable on the dates set forth in Section 214 or less frequently upon the determination of the Chief Engineer. Wastewater dischargers subject to such user charges may be required to periodically submit information necessary for the determination of charge rates or total charges. User charges shall be established by the Chief Engineer to equitably defray costs incurred by the Districts for collection, treatment and disposal of the wastewater from dischargers within these established categories. The Chief Engineer may permit or require an industrial discharger otherwise subject to a wastewater treatment user charge to pay a wastewater treatment surcharge under Section 409 in lieu of the user charge.

SECTION 423—SPECIAL CHARGES FOR NONCONVENTIONAL INDUSTRIAL WASTEWATER CONSTITUENTS

Special charges for nonconventional industrial wastewater constituents shall be paid by those industrial dischargers who discharge thiosulfate, volatile organic compounds, or other nonconventional industrial wastewater constituents in excess of any threshold values for such constituents as may be established from time to time by the Chief Engineer. Special charges for nonconventional wastewater constituents shall be based on the appropriate Districts' sewerage system's maintenance, operation and capital expenditures for providing collection, treatment and disposal services in connection with such constituents.

(S) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of toxic organic, chlorinated hydrocarbon or organic phosphorus-type compounds.

(T) Any excessive quantities, as defined by the Chief Engineer, of deionized water, steam condensate or distilled water.

(U) Any waste containing substances that may precipitate, solidify, gel, polymerize or become viscous under conditions normally found in the sewerage system.

(V) Any waste producing or contributing to discoloration of wastewater or treatment plant effluent, as determined by the Chief Engineer.

(W) Any garbage or waste, other than domestic wastewater, that is not ground sufficiently to pass through a 3/8-inch screen.

(X) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of iron, manganese, boron, chromium, phenols, plastic resins, copper, nickel, zinc, lead, mercury, cadmium, selenium, silver, arsenic or any other materials toxic to humans, animals, the environment or to biological or other wastewater treatment processes.

(Y) Any blow-down or bleed water from cooling towers or other evaporative coolers exceeding one-third of the makeup water.

(Z) Any single pass cooling or heating water.

(AA) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of radioactive material wastes.

(BB) Recognizable portions of the human anatomy.

(CC) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of detergents, surface active agents, or other substances, which may cause foaming in the sewerage system.

(DD) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of chlorides, fluorides, sulfates, borates or any other materials that can pass through treatment facilities and degrade water quality or limit reuse of the wastewater.

(EE) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of ammonia.

(FF) Any waste containing excessive quantities or concentrations, as defined by the Chief Engineer, of benzene or other volatile organic compounds or any other waste constituent that alone or in combination with other materials adversely affects air quality.

The Chief Engineer shall, from time to time, establish quantitative or other limitations applicable to industrial waste discharges when in his judgment it is necessary to protect the Districts' sewerage system or to be in compliance with state or local law or Federal Regulations. Such limitations shall apply at the industrial wastewater monitoring facility or station prior to mixing with domestic wastewaters. Wastewater discharges in excess of the limits established by the Chief Engineer or any state law or applicable Federal Pretreatment Standards shall constitute excessive concentrations or quantities prohibited by this Section 406. The Chief Engineer shall promulgate and maintain a list of limitations established for restricted wastes which are generally applicable to all dischargers and shall make such list available upon request.

are from time to time provided for by said City's Initial Industrial Waste Permit Fee and Annual Inspection Fee. Such fees and charges shall be payable at such times and in such manner as said City shall from time to time provide. Dischargers whose flow is tributary to the treatment facilities of said City shall not, however, be directly subject to the fees and charges provided for by said City's Sewer Service Charge or Sewerage Facilities Charge but will be subject to District surcharge calculated in accordance with such fees and charges. Such charges of the City of Los Angeles are described in the Los Angeles Municipal Code, Section 64, as now or hereafter amended.

Industrial wastewater discharge permits for dischargers tributary to the treatment facilities of the City of Los Angeles will be issued by the City after approval by the Districts. Inspection of the discharger's plant to determine compliance with industrial waste discharge regulations may be made by either City or Districts' personnel under a coordinated plan of inspection developed by the two agencies. Industrial waste discharge regulations and effluent limitations of both agencies will apply to the discharger unless one agency specifically waives its requirements.

SECTION 421—PUBLICATION OF NAMES OF SIGNIFICANT VIOLATORS

As required by federal law, the Chief Engineer shall, at least annually, provide public notice in a local newspaper of the identity of those dischargers who are deemed under federal regulations to be significant violators of or in significant noncompliance with the provisions of this Ordinance which implement the federal industrial waste pretreatment program.

SECTION 422—WASTEWATER TREATMENT USER CHARGE

requirement and the imposition of appropriate fees and charges.

SECTION 419–TRADE SECRETS

The Districts have determined that the public interest served by not making public any records or other information submitted by dischargers which contain or constitute trade secrets clearly outweighs the public interest served by the disclosure of said records. Accordingly, any trade secrets acquired by the Districts in the course of implementation or enforcement of this Ordinance shall not be made public except to the extent necessary to enforce this Ordinance.

Any claim or trade secret status must be asserted at the time of submission of such information to the Districts by stamping the words "Confidential Business Information" on each page or document containing such information. All information on wastewater effluent quality or quantity furnished by the company or obtained by the Districts shall not be eligible for trade secret status and shall be available as public information.

SECTION 420–INDUSTRIAL WASTEWATER DISCHARGERS WITHIN A DISTRICT BUT TRIBUTARY TO THE CITY OF LOS ANGELES' TREATMENT FACILITIES

In certain areas of the Districts outside of the City of Los Angeles, wastewaters discharged by industrial companies are tributary to treatment facilities owned and operated by the City of Los Angeles. The provisions of this Section are designed to provide for reimbursement to the City of Los Angeles for its costs incurred in the treatment and disposal of these wastewaters.

All industrial wastewater dischargers whose flow is tributary to treatment facilities of the City of Los Angeles shall pay to said City all fees and charges that

The Chief Engineer shall establish quantitative limitations for dischargers which, because of their location, quantity or quality of discharge, can degrade the quality of wastewater treatment plant effluent or residue or air quality to a level that prevents or inhibits Districts' efforts to reuse or dispose of the water or residue or causes any unusual operation or maintenance problems in the sewerage system. The Chief Engineer, in determining the unacceptability of specific wastes, shall consider the nature of the waste and the adequacy and nature of the collection, treatment and disposal system available to accept the waste.

SECTION 407–MEDICAL AND INFECTIOUS WASTES

The Chief Engineer may prohibit the discharge of infectious wastes and may require that any such wastes be rendered noninfectious prior to discharge if deemed to pose a threat to public health and safety. No person shall discharge solid wastes from hospitals, clinics, offices of medical doctors, convalescent homes, medical laboratories or other medical facilities to the Districts' sewerage system including, but not limited to, hypodermic needles, syringes, instruments, utensils or other paper and plastic items of a disposable nature, or recognizable portions of the human anatomy or laboratory animals, except where prior written approval for such discharges is given by the Chief Engineer. Approved discharges shall be considered industrial wastewater discharges under this Ordinance. Any such approval may be revoked at any time by the Chief Engineer.

SECTION 408–AVAILABILITY OF DISTRICTS' FACILITIES

If sewerage capacity is not available, the Districts may require any industrial wastewater discharger to restrict a discharge until sufficient capacity can be made available. When requested, the Districts will advise

persons desiring to locate new facilities of those areas where industrial wastewater of their proposed quantity and quality can be accommodated by available sewerage facilities. The Districts may refuse service to persons locating facilities in areas where their proposed quantity or quality of industrial wastewater would adversely affect the available sewerage facility.

SECTION 409--WASTEWATER TREATMENT SURCHARGE FOR INDUSTRIAL DISCHARGERS

Each industrial discharger not exempted under Section 411 shall pay to the Districts an annual wastewater treatment surcharge in accordance with Section 214. The wastewater treatment surcharge shall be determined in accordance with each such discharger's contribution of flow, chemical oxygen demand, suspended solids and peak flow. The wastewater treatment surcharge shall be based on the appropriate Districts' sewerage system's maintenance, operation and capital expenditures for providing wastewater collection, treatment and disposal services as described in Section 410.

The annual wastewater treatment surcharge shall be computed by the following formula:

$$\text{Surcharge} = a(V) + b(COD) + c(SS) + d(M)(P)$$

Where:

Surcharge = Net annual wastewater treatment surcharge in dollars.

V = Total annual volume of wastewater flow, in millions of gallons.

COD = Total annual wastewater discharge of chemical oxygen demand, in thousands of pounds.

reject wastes that the Chief Engineer has reason to believe may be a hazardous waste, an industrial waste that has not been properly permitted, or any other waste with unusual or unknown characteristics which may require further analyses to determine its acceptability for sewer disposal.

Holders of the Truck Permit shall pay all applicable permit fees, permit renewal fees and wastewater disposal fees. The wastewater disposal fee may be paid with Liquid Waste Disposal Fee Coupons, available for purchase at Districts' offices or by other methods of payment approved by the Chief Engineer.

The Chief Engineer may revoke or suspend a Truck Permit in accordance with the procedures described in Sections 404 and 405 upon a finding that the permit holder has violated any provision of this Ordinance. Any person whose Truck Permit has been suspended or revoked shall immediately cease and desist all discharge of truck-transported wastes to the Districts' sewerage system. Any person whose Truck Permit has been revoked shall surrender to the Districts any identification decals or devices that have been issued to the person by the Districts.

Any person found to be dumping truck-transported wastes directly or indirectly to the Districts' sewerage system, including sewers owned by the local sewering agency and discharging to the Districts' sewerage system, at any location not specifically authorized by the Districts for such purpose, shall be in violation of this Ordinance. Such person shall at the direction of the Chief Engineer be subject to all enforcement provisions of Section 202 including prohibition by the Districts from any future use of the Districts' sewerage system for disposal of wastes from wastewater transport trucks.

Recreational vehicle sanitary waste disposal stations shall also be subject to regulation by the Chief

wastewater transport truck that discharges to the Districts' sewerage system. No person shall discharge any hazardous wastes, as defined by federal or state law, from any vehicle directly or indirectly to the Districts' sewerage system.

A holder of a Truck Permit shall discharge wastewater only at approved locations, and may discharge only domestic wastewater from septic tanks, seepage pits, cesspools, chemical toilets or approved waste-holding devices. Discharge of industrial wastes or any wastes other than specified above is prohibited unless a Districts' Permit for Industrial Wastewater Discharge (Permit) has first been obtained by the generator of such wastes together with the written permission of the Chief Engineer to discharge wastewater at the approved location. Emergency discharge of wastewater not covered under an existing Districts' Permit or Truck Permit may be granted only through written permission of the Chief Engineer, and shall be made only at the locations and times designated by the Chief Engineer.

Applicants for a Truck Permit shall complete a Districts' application form available at the offices of the Districts. Upon receipt of a fully completed application form and all required information, the application shall be processed and reviewed by the Chief Engineer. If approved, one copy of the application form shall be returned to the applicant and, when properly signed by the Chief Engineer, the application form shall constitute a valid Truck Permit. Periodic renewal of the Truck Permit is required.

No person shall discharge any prohibited or restricted wastes as described in Section 406 of this Ordinance at any Districts' approved disposal locations for wastewater transport trucks. The Districts may require proof of the origin of truck-transported wastes, and physical and chemical analyses of any wastes before permission is granted to dispose of such wastes at approved locations. The Districts may

SS = Total annual wastewater discharge of suspended solids, in thousands of pounds.

P = Peak wastewater discharge rate over a thirty- (30-) minute period occurring between the hours of 8:00 a.m. and 10:00 p.m. in gallons per minute. Values of "P" which are equal to or less than ten (10) gallons per minute shall be considered equal to zero.

a,b,c & d = Unit charge rates adopted annually by each individual District based upon the projected annual costs for wastewater collection, treatment and disposal, in dollars per unit, as described in Section 410.

M = Multiplying factor accounting for increased Districts' costs due to high ratios of industrial discharger peak to average flow rates (P/A), where "P" is defined above, and "A" is the average wastewater discharge rate, determined by dividing "V" by the total annual hours of significant wastewater discharge for the industrial discharger, converted to gallons per minute. Factor M is obtained from Figure 1.

The quantities for yearly total flows, COD, suspended solids and peak flow rates used in the above formula are to be determined by wastewater flow measurements and periodic sampling and analysis of the wastewater in accordance with such procedures as may be specified by the Chief Engineer. Extensive wastewater sampling, analysis and flow measurement may be required by the Chief Engineer for larger wastewater dischargers or for those who discharge pollutants in significantly large or unusual amounts.

The Chief Engineer shall set the minimum requirements for sampling, analysis and flow measurement by the discharger necessary to establish quantities to be used in the above formula.

The Chief Engineer shall each year establish a wastewater treatment charge per million gallons applicable to industrial dischargers whose yearly flow does not exceed six (6) million gallons. This charge shall be based upon average costs of providing wastewater services to industrial dischargers falling within this classification and may be used upon approval of the Chief Engineer in lieu of the preceding formula. Approval of the Chief Engineer shall be withheld only with respect to discharges of unusually high strength wastes in terms of COD and suspended solids. Wastewater treatment surcharges for such dischargers shall be due and payable on the dates set forth in Section 214 or less frequently upon the determination of the Chief Engineer. The Chief Engineer may from time to time establish a different quantitative limitation than that set forth above so long as the same does not exceed a yearly flow of twelve and one-half million gallons. The charge described in this paragraph shall not apply to industrial dischargers subject to user charges established under Section 422.

The Chief Engineer shall each year establish a charge per employee for domestic wastewater discharges which shall be paid by all industrial dischargers whose domestic wastewater is not included in the general wastewater treatment surcharge payment. Such charge shall be based upon the average quantity and quality of domestic wastewater per employee and the charge rates established for the wastewater treatment surcharge formula.

If the industrial discharger elects or is required by the Districts to discharge the peak rates of industrial wastewater flow during the nighttime hours between 10:00 p.m. and 8:00 a.m., the flow discharge shall be made approximately uniform during these hours. Certain industrial dischargers by categories and establish a wastewater treatment surcharge based upon average flow quality and flow quantity for the category. Such classification may be adjusted by some commonly recognized parameter selected by the Chief Engineer that establishes the relative size of the wastewater discharger being charged.

SECTION 417—DAMAGES CAUSED BY WASTEWATER DISCHARGES

Any person who discharges any waste which causes or contributes to any damage, injury, excessive wear or deterioration of any Districts' facilities, requires the clean up, removal, reconstruction or replacement of such facilities, brings about any detrimental effects on treatment processes, or causes any other damage including the imposition of fines by state, federal, or other regulatory agencies on the Districts shall be liable to the Districts for all costs and expenses occasioned thereby including administrative costs. If more than one discharger contributed to such damages, each contributing discharger shall be jointly and severally liable to the Districts for all such damages. The Chief Engineer may apportion such damages among the contributing dischargers in accordance with his assessment of the relative contribution of each discharger.

SECTION 418—DISPOSAL OF VEHICLE-TRANSPORTED LIQUID WASTES TO THE SEWERAGE SYSTEM

No person shall discharge or cause to be discharged any wastes from septic tanks, seepage pits, cesspools, chemical toilets or other approved waste-holding devices, any industrial liquid wastes or any other liquid wastes from a vacuum pumping truck or other liquid transport vehicles, directly or indirectly to the Districts' sewerage facilities without first obtaining a Districts' Permit for Wastewater Transport Truck to Discharge to the Sewerage System (Truck Permit)

engineering investigations, tests, flow measurements and wastewater sampling and analyses. All costs of engineering investigations, flow measurements, wastewater sampling and analyses and other actions performed by the Districts to resolve the discrepancy shall be paid for by the discharger.

The Chief Engineer shall then make a determination of the amount of any wastewater treatment and disposal charges plus charges for costs of obtaining additional information which are due to the Districts, together with any interest and penalty charges due, and shall notify the discharger of the total charges due. The discharger shall pay such amounts within 45 days after service of written notice. For the purpose of establishing the correct wastewater treatment and disposal charges, the data obtained in these samplings, along with any other relevant information obtained by the Districts or presented by the discharger, shall be used by the Chief Engineer. If an evaluation of wastewater monitoring data of the discharger by the Chief Engineer indicates that some or all of the discharger's data are statistically or otherwise unrelated to the data obtained by the Districts and there is no satisfactory explanation for such discrepancy, the Chief Engineer may reject any or all of the data submitted by the discharger. The Chief Engineer may then use all or portions of data obtained by the Districts to determine appropriate wastewater treatment and disposal charges.

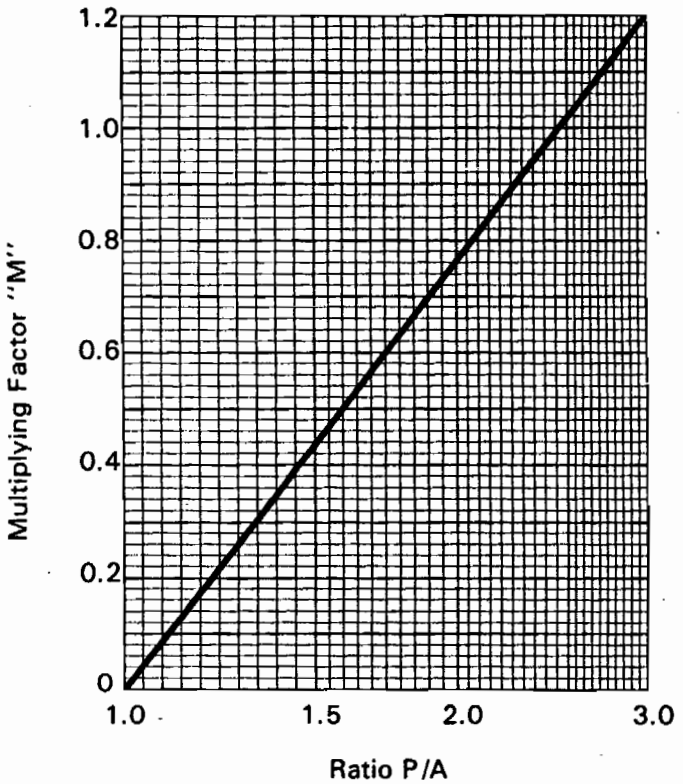
The discharger may, within 12 months after payment of a wastewater treatment surcharge, submit a request for a refund together with appropriate supporting data. The Districts will consider this request and if a refund is due it shall be granted.

SECTION 416–WASTEWATER DISCHARGER CLASSIFICATIONS

The Chief Engineer may classify wastewater

FIGURE 1

VALUES OF MULTIPLYING FACTOR "M"



NOTE:

Mathematical formula for "M" is: $M = 2.50 \log (P/A)$

discharging peak flow during the nighttime hours if these flows would adversely affect Districts' operations.

SECTION 410–ESTABLISHMENT OF UNIT CHARGE RATES FOR WASTEWATER TREATMENT SURCHARGE

Unit charge rates a, b, c, and d in the wastewater treatment surcharge formula, as described in Section 409, shall be established annually for each sewerage system by the procedure described herein and shall be adopted by the individual Districts which utilize each system.

For each sewerage system, appropriate unit charge rate parameters for flow, chemical oxygen demand and suspended solids—respectively designated a (in dollars per million gallons), b (in dollars per 1000 pounds of COD) and c (in dollars per 1000 pounds of suspended solids)— shall be determined by the following method:

(A) The total annual operation and maintenance costs for each sewerage system, excluding the annual costs for the administration and operation of the industrial waste program, shall be estimated for the accrual year and distributed among the three wastewater charge parameters of flow, chemical oxygen demand, and suspended solids. This distribution shall be in accordance with the Chief Engineer's determination of the average distribution of such sewerage system's costs predominantly related to each parameter for the most recent year for which complete data are available.

(B) The total annual net capital costs for each sewerage system shall be estimated for the accrual year and distributed among the three wastewater charge parameters of flow, chemical oxygen demand and suspended solids in accordance with the Chief Engineer's

(4) The analytical techniques/methods used; and

(5) The results of such analyses.

Each industrial discharger shall retain for a minimum of four years any and all records of wastewater monitoring and sampling activities and analytical results. This period of retention shall be extended during the course of any unresolved disputes or litigation involving the discharger and the Districts, or when requested by the Chief Engineer.

SECTION 415–DISCREPANCIES BETWEEN ACTUAL AND REPORTED INDUSTRIAL WASTEWATER DISCHARGE QUANTITIES

Should Districts' measurements or other investigations indicate that an industrial wastewater discharger is discharging a quantity of wastewater, chemical oxygen demand, suspended solids, or other wastewater constituent or at a flow rate significantly in excess of that stated in the Districts' Permit, the discharger shall apply for a revised Permit.

Should measurements or other investigations indicate that an industrial wastewater discharger has discharged industrial wastewater, chemical oxygen demand, suspended solids or other wastewater constituents at rates or in quantities in excess of those stated by the discharger on a wastewater treatment surcharge statement or other report furnished by the discharger to the Districts, the discharger shall furnish all information in its possession relevant to the apparent discrepancy.

If, after making proper allowance for relevant factors, the Chief Engineer is unable to resolve the discrepancy on the basis of the information available, the Chief Engineer may order that additional informa-

Chief Engineer to require engineering design, shall be prepared and signed by a civil, chemical or mechanical engineer registered in the State of California or a registered engineer of other suitable discipline as determined by the Chief Engineer.

The discharger's wastewater sampling analysis and flow measurement procedures, equipment, and results shall be subject to inspection by the Districts at any time. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean, and maintained in good working order at all times by the discharger. The failure of a discharger to keep approved wastewater monitoring facilities clean and in good working order shall not be grounds for the discharger to claim that any sample results are unrepresentative of the discharger's wastewater. Flow measurement systems shall be regularly maintained and calibrated in accordance with guidelines established by the Chief Engineer.

Industrial wastewater records and documents, including sample analysis reports, waste hauler's reports, flow meter charts, pH meter charts, and other records of monitoring and sampling activities and reports shall be made available for inspection and copying to the Chief Engineer upon request. Copies or facsimiles of these records shall be provided to the Districts at the discharger's expense upon request. The discharger's records must include for all samples:

(1) The date, exact location, method and time of sampling and the names of the person or persons taking the samples;

(2) The dates analyses were performed;

(3) The person performing the analyses;

determination of the portion of the sewerage system's net capital costs predominantly related to each parameter in the accrual year.

(C) The sum of the total annual accrual year operation and maintenance costs in (A) above and the total annual net capital costs in (B) above shall be used to determine the weighted distribution for wastewater charge parameters of flow, chemical oxygen demand, and suspended solids for each sewerage system for the accrual year.

(D) The sum of the total annual accrual year operation and maintenance costs and the total annual net capital costs and necessary reserves for each sewerage system as determined by the Chief Engineer shall be offset by appropriate revenue sources to determine the remaining revenue required to operate each sewerage system in the accrual year. The remaining revenue required shall be distributed to the three wastewater charge parameters of flow, chemical oxygen demand, and suspended solids as determined in (C) above. The costs attributed to each parameter shall be divided by the projected annual total flow volume and total masses of chemical oxygen demand and suspended solids, respectiveiy, to be treated by the sewerage system in the accrual year. The projected annual total flow volume and total masses of chemical oxygen demand and suspended solids shall be based on an estimated mass balance of all wastewater discharges to the sewerage system as determined annually by the Chief Engineer. The unit wastewater charge rates so determined will be expressed in dollars per million gallons for a_1 and in dollars per thousands pounds by b_1 and c_1.

(E) The annual accrual year costs for the administration and operation of the industrial waste program shall be distributed to the three wastewater charge parameters of flow,

chemical oxygen demand and suspended solids as determined in (C) above. The dollar amount attributed to each wastewater charge parameter shall be divided by the projected annual total flow volume and weights of chemical oxygen demand and suspended solids, respectively, to be generated by the industrial waste dischargers to the Districts' sewerage systems in the accrual year. The unit wastewater charge rates so determined will be expressed in dollars per million gallons for a_2 and in dollars per thousand pounds for b_2 and c_2.

(F) The sum of the respective unit rates for a_1, b_1, c_1 in (D) above and the respective unit rates for a_2, b_2, c_2 in (E) above shall be calculated. The unit wastewater charge rates so determined will be expressed in dollars per million gallons for a and in dollars per thousand pounds for b and c.

For each sewerage system in the Districts, the unit charge rate related to peak flow rate and designated d (in dollars per gallon per minute of peak flow) shall be determined by the following method:

(A) The total capital investment in the sewerage system in the thirty (30) years prior to the accrual year shall be divided by the total peak hydraulic capacity of all treatment facilities in the system to determine a unit cost per million gallons per day of peak flow capacity.

(B) The unit cost determined in (A) above shall be divided by thirty (30) and converted to a gallon-per-minute basis to obtain the unit charge rate d.

SECTION 411—WASTEWATER TREATMENT SURCHARGE STATEMENT

Each industrial discharger, except for those dischargers that fall within a flow classification exempted by the Chief Engineer, shall file annually with

pretreatment equipment or technology, Baseline Monitoring Reports, Compliance Schedule Progress Reports, Final Compliance Reports, and Notices of Slug Loading. All dischargers shall develop, submit and adhere to any self-monitoring reports and compliance schedules required by the Chief Engineer.

(C) WASTEWATER MONITORING FACILITIES

All industrial wastewater dischargers required to obtain a Permit shall furnish, install and properly maintain a monitoring facility for wastewater sampling. This monitoring facility shall be of a design or configuration approved by the Chief Engineer, which may include wastewater flow measurement equipment, automatic flow-proportional sampling equipment and automatic wastewater analysis and data recording equipment. The wastewater monitoring facility shall be used to evaluate the quantity and quality of industrial wastewater discharge to the public sewer. Each industrial discharger, as a part of its application for obtaining a Permit, shall propose a suitable location and design for the wastewater monitoring facility. Upon approval of the monitoring facility by the Districts, the discharger shall perform wastewater monitoring at this facility and shall agree to allow the use of this facility for industrial wastewater monitoring by the Districts. The monitoring facility shall be located so as to be safe and accessible to Districts' employees, and shall be constructed in accordance with the Districts' requirements, and all applicable local building codes and other local construction requirements. The discharger's proposal for a wastewater monitoring facility shall comply with Districts' design requirements and shall be reviewed and, if found to be suitable, approved by the Chief Engineer. Plans for all wastewater monitoring facilities, including flow measure-

may be specified by the Chief Engineer or required under applicable state law, Federal Pretreatment Standards, or Federal Regulations. Wastewater flow measurements and samples shall be collected and analyzed and the results submitted under penalty of perjury in the same form as provided in this Section 414(A) for flow measurements and samples required for surcharge reporting purposes, or as otherwise provided by the Chief Engineer, and shall be reported to the Districts at such times as may be specified by the Chief Engineer. Routine self-monitoring reports required under the Districts' Critical Parameter Report program are considered informational only and will not be made the basis for prosecutions for violations of this Ordinance. Such information, however, may be the basis for further inquiry and investigation by the Districts, and may be used in civil proceedings.

Dischargers who fail to perform any required monitoring, fail to accurately perform such monitoring, or fail to properly report to the Districts the results of such monitoring, shall pay all costs of any Districts' monitoring needed to satisfy applicable monitoring requirements.

Dischargers shall develop compliance schedules for installation of technology required to meet applicable Federal Pretreatment Standards, Districts' pretreatment requirements, and any other applicable discharge requirements established by state law or Federal Regulations. Dischargers subject to such standards and requirements shall submit to the Districts all notices and self-monitoring reports as are necessary to assess and assure compliance with such standards and requirements including, but not limited to, compliance schedules for the installation of required

the Districts a wastewater treatment surcharge statement. All surcharge statements and any required payments shall be filed on or before August 15 following the end of the fiscal year. Each industrial discharger shall report on such statement the total annual surcharge due to the Districts and the wastewater discharge data used in making such calculations. Such information shall be provided on a form prepared by the Chief Engineer and shall be signed by the discharger under penalty of perjury. Dischargers shall comply with all instructions which accompany the Districts' forms. The discharger shall submit such additional data as the Chief Engineer may from time to time require in implementing the wastewater treatment surcharge program.

SECTION 412—PRETREATMENT OF INDUSTRIAL WASTEWATERS

The Chief Engineer may require an industrial discharger to provide wastewater pretreatment systems or facilities whenever the Chief Engineer determines that it is necessary or advisable to treat industrial flows prior to discharge to the sewer, to restrict or prevent the discharge to the sewer of certain waste constituents, to distribute any peak discharges of industrial wastewaters more equally over a longer time period, to comply with any state discharge or pretreatment requirements, to comply with Federal Pretreatment Standards, or to accomplish any pretreatment result required by the Chief Engineer in order to effectuate the purposes of this Ordinance. Any pretreatment facilities required by the Chief Engineer shall be provided and maintained at the expense of the industrial wastewater discharger. Pretreatment systems or facilities shall not be installed or operated without the prior written approval of the Chief Engineer. The requirement for such approval, however, shall not absolve the industrial discharger of the responsibility for meeting any industrial wastewater discharge limitation imposed by

the Districts or by the state or federal government. If inspections or other information reveal that pretreatment systems and facilities are not installed or operated in conformance with the plans and procedures submitted to and approved by the Districts, or are not operated in compliance with the discharge requirements and limitations imposed by the Districts, the industrial discharger shall make such modifications as are necessary to meet such requirements. In special cases, the Chief Engineer may require construction of sewer lines by the discharger to convey certain industrial wastes to specific trunk sewers in addition to or in lieu of the installation of a pretreatment system. Users who have the potential to discharge significant levels of flammable substances, as defined by the Chief Engineer, shall install and maintain approved combustible gas detection meter systems. All pretreatment systems determined by the Chief Engineer to require engineering design shall have plans prepared and signed by a civil, chemical, or mechanical engineer registered in the state of California or a registered engineer of other suitable discipline as determined by the Chief Engineer.

Gravity separation interceptors, equalizing tanks, neutralization chambers, control manholes or other monitoring facilities, and spill containment systems, may be required by the Chief Engineer as he deems necessary to remove prohibited settleable and floatable solids, to equalize wastewater streams varying greatly in quantity and/or quality, to neutralize low or high pH wastewater, to facilitate inspection, flow measurement and sampling, and to prevent discharge to the sewer of quantities of prohibited or restricted materials resulting from a rupture of a tank or pipeline or other such accidental occurrences. Spill containment systems shall conform to guidelines established by the Chief Engineer. Floor drains from commercial or manufacturing buildings, warehouses or multi-use structures shall first discharge to a gravity separation interceptor before entry into the sewer system.

performed in accordance with the procedures provided in the above references.

All sample results, and all other information, submitted to the Districts shall be verified under penalty of perjury by an authorized representative of the discharger who is also either a general partner or proprietor, or, if a corporation, a principal executive officer of at least the level of vice president. An authorized representative of the discharger shall further certify that all sample results submitted to the Districts are properly composited samples of the discharger's wastewater taken from the discharger's approved monitoring facility at the times and locations stated in full compliance with all Districts' requirements for sample collection. If samples are collected by an outside consultant, the consultant shall also certify that the samples were collected in full compliance with Districts' requirements. All reports of the results of wastewater analysis shall be signed by the person performing the analysis or other authorized representative of the analytical laboratory performing the analysis, and any limiting words on the report notwithstanding, such signature shall constitute a certificate under penalty of perjury by such person that the reported analysis was actually performed on the sample identified in the report, that the analysis was performed in accordance with the procedures specified in this Ordinance, and that the results described in the report are the true results of the analysis performed.

(B) WASTEWATER MONITORING AND REPORTING FOR OTHER PURPOSES

In addition to the measurements and samples required for surcharge reporting purposes, each industrial discharger shall make such other

results for monitoring by the discharger deemed faulty by the Chief Engineer.

Wastewater samples shall be analyzed by a state certified laboratory or laboratory approved by the Chief Engineer. All analyses shall be performed in accordance with the procedures specified by the U.S. Environmental Protection Agency (EPA) in the most current "Guidelines Establishing Test Procedures for the Analysis of Pollutants" (40 Code of Federal Regulations, Part 136) (Guidelines). For those industrial wastewaters which contain unusual quantities or types of wastes, the Chief Engineer may require (1) use of alternate methods or procedures specified in the Guidelines or the most current edition of *Standard Methods for the Examination of Water and Wastewater* (Standard Methods), (2) use of modifications to the methods or procedures specified in the Guidelines or Standard Methods, or (3) use of any other test method or procedure that gives a reasonable value of the pollutant. If no appropriate procedure is provided in the above references, the Chief Engineer may approve the standard procedure of the industry or other procedure to measure wastewater constituents. For wastewater analyses that would be significantly affected by conditions of the wastewater sample which are different from normal conditions prevailing in the sewerage system, (e.g., pH), the Districts may require that the sample be adjusted to normal sewerage system conditions before analysis. Any independent laboratory or discharger performing wastewater analyses shall furnish any required analytical data or information on the procedures or equipment used if requested to do so by the Chief Engineer. Dischargers shall clearly identify on their reports to the Districts any analyses which were not

Any discharger which has a pumping plant or long private sewer leading from the industrial wastewater pretreatment system to the nearest public sewer may be required to install a monitoring facility or other equipment on the private sewer immediately before the junction with the public sewer. Such facility shall be required by the Chief Engineer to be designed and constructed so as to enable Districts' personnel to verify the quantity and quality of wastewater actually discharged into the public sewer.

The Chief Engineer may from time to time adopt specific requirements for pretreatment systems and facilities. Such requirements shall be set forth in the Districts' waste discharge guidelines and shall be summarized in the most recent edition of the Districts' booklet entitled "Information and Instructions for Obtaining an Industrial Wastewater Discharge Permit." This Permit booklet shall be made available at the Districts' offices and at the office of the local sewering agency having jurisdiction over the local sewers tributary to the Districts' sewerage system. Dischargers shall comply with all pretreatment requirements, requirements for construction of facilities, requirements for wastewater sampling and analysis, and requirements for submittal of permits specified in the waste discharge guidelines and the Permit booklet.

SECTION 413—SEPARATION OF DOMESTIC AND INDUSTRIAL WASTEWATERS

All domestic wastewaters from rest rooms, showers, drinking fountains, etc., shall be kept separate from all industrial wastewaters until the industrial wastewaters have passed through any required pretreatment system or device and the discharger's monitoring facility or station.

SECTION 414–WASTEWATER MONITORING AND REPORTING

(A) SURCHARGE REPORTING

Each industrial discharger shall make such measurements of wastewater flow volumes, flow rates, chemical oxygen demand (COD) and suspended solids (SS) as are necessary to accurately determine its annual wastewater treatment surcharge unless specifically relieved of such obligation by the Chief Engineer as provided under Section 409 of this Ordinance. Each discharger shall take at least the minimum number of flow measurements and wastewater samples for COD and SS analyses as required by the Chief Engineer. Dischargers who fail to perform required monitoring, fail to accurately perform such monitoring, or fail to properly report the results of such monitoring to the Districts shall pay the costs of any Districts' monitoring needed to satisfy applicable monitoring requirements. Dischargers with more than one identifiable waste stream or with large variations or fluctuations in wastewater quantity or quality must take a sufficient number of flow measurements and samples to accurately represent the total wastewater flow from the discharger's facility including each identifiable waste stream, variation or fluctuation. The Chief Engineer may require industrial dischargers to provide additional or continuous wastewater flow measurement and sampling. If a discharger fails to take the minimum number of wastewater samples or flow measurements, fails to accurately take such samples or measurements, or fails to properly report the results of such monitoring to the Districts, then the Chief Engineer may determine that the discharger's wastewater monitoring, including sampling, analysis, flow measurements or other engineering investigations, shall be undertaken by the Districts with all associated costs of such monitoring to be paid by the discharger.

Wastewater samples and flow measurements reported to the Districts shall be taken from monitoring facilities of a design and configuration approved by the Chief Engineer. Samples shall be composites taken at least once per hour over a 24-hour period, properly refrigerated, and where appropriate, composited according to wastewater flow rates during the 24 hours. Dischargers required to have wastewater flow monitoring systems shall use such systems to obtain accurate flow-proportioned composite samples, and shall report the flow volumes and flow rates recorded by such systems on their annual surcharge statements. Dischargers shall monitor wastewater discharges which are representative of the entire range of plant operations.

Dischargers shall report to the Districts the analytical results for COD and SS for each wastewater sample taken and analyzed during the fiscal year. Copies of all laboratory results of such analyses shall be submitted with the discharger's annual wastewater treatment surcharge statement. If a discharger believes that an analysis is in error or not truly representative of its wastewater, the discharger shall so state, submit the analysis, and furnish all reasons why the analysis is believed to be erroneous or unrepresentative.

The Districts will take measurements and samples from time to time to verify the wastewater characteristics reported to the Districts. Dischargers shall assist the Districts where necessary to obtain correct and accurate measurements, and shall not interfere with the operations of Districts' personnel or equipment. Upon audit of a discharger's surcharge statement, the Chief Engineer may include the results of any Districts'

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GUIDELINES FOR THE DISCHARGE OF RAINWATER, STORMWATER, GROUNDWATER AND OTHER WATER DISCHARGES

PURPOSE AND SCOPE

The County Sanitation Districts of Los Angeles County (Districts) Policy on Rainwater, Groundwater and other Water Discharges is established under the provisions of Section 305 of the Wastewater Ordinance as amended November 1, 1989. Section 305 specifies that no rainwater, stormwater, groundwater, artesian well water, street drainage, yard drainage, water from yard fountains, ponds or lawn sprays shall be discharged to the Districts' sewerage system, except where prior approval has been given by the Chief Engineer. The purpose of this document is to present guidelines for the implementation of this policy as it applies to rainwater, groundwater and other water discharges mentioned in Section 305.

I. RAINWATER AND STORMWATER[1]

As a general practice, the Districts require roofing and/or grading of open areas with exposed drains which discharge to the public sewer, so that all direct rainfall, stormwater and other runoff are conveyed to the storm sewer. This practice protects the Districts' sewerage system from excessive hydraulic loads that can be created by stormwater runoff. The Districts recognize that there may be situations where roofing and/or grading of exposed areas may be impossible or prohibited by local regulations. Under these conditions, the Districts may accept the controlled discharge of rainwater or stormwater to the sewerage system on a case-by-case basis, and only after all other alternatives have been demonstrated to be unfeasible. Applications for discharge of rainwater or stormwater to the sewerage system must include sufficient documentation to demonstrate that no other alternatives are feasible. Alternatives that must be considered include treatment and discharge to the storm sewer, reuse, on-site storage/evaporation and relocation of the processing or treatment areas exposed to rainwater intrusion.

Any rainwater or stormwater accepted into the public sewer from any area larger than 400 square feet is considered to be industrial wastewater and, as such, it must be regulated by a Districts' industrial wastewater discharge permit and must comply with all applicable effluent limits. In addition, restrictions may be imposed on the maximum flow rate discharged from a facility during rainfall periods, as well as on the time of day when the discharge of rainwater/stormwater to the sewerage system may occur. Finally, the Districts may require rainwater diversion systems, effluent flow monitoring systems, flow restrictors and other devices on a case-by-case basis and as determined necessary by the Chief Engineer. Additional restrictions on the discharge of rainwater to the public sewer may be imposed by the local sewerage agency.

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[1] Rainwater and stormwater are defined terms in the Wastewater Ordinance.

Specific Requirements

1. Roofing or Regrading. Provided that local regulations are satisfied, whenever practical, roofing will be required for all exposed process areas under 4,000 square feet; roofing for exposed areas greater than 4,000 square feet will be determined by the Districts on a case-by-case basis. If the roof structure does not include side walls, then the roof's overhang must extend a minimum of 20 percent of the roof's height. In addition, the surrounding area must be graded such that no storm runoff will flow into the roofed area. Finally, all roof drains must be routed to the storm sewer.

Exposed areas that are exempted from the roofing requirement must be properly graded to insure that rainwater and stormwater are prevented from entering into the public sewer. If regrading is required, it should be accomplished by modifying the grade of the property in such a manner that it maximizes the amount of rainwater/stormwater diverted to the storm drain. Existing areas which are exposed to rainwater or stormwater intrusion may be modified to restrict discharge to the sewer by installing permanent berms around all exposed drains, sumps or trenches which are directly connected to the sewerage system. All berms must be built with concrete, brick or other similar waterproof construction material and shall be permanently fixed to the floor with proper bonding (e.g. concrete, mastique, etc.). The berms must not have outlet valves, gates or openings of any kind.

2. Automatic Diversion. If it is determined by the Districts that complete segregation of rainwater or stormwater from the sewerage system is not feasible, then only the rainwater/stormwater that flows to the sewer during the first 0.1 inch of rainfall will be allowed as described in the following subsections a, b and c. After the first 0.1 inch of rainfall, excess rainwater or stormwater must be diverted to an approved drainage system by use of an automatic rainwater diversion system. Such systems are generally restricted to industrial facilities with contributing process areas under 10,000 square feet. Larger areas should be regraded to minimize drainage areas, and rainwater or stormwater from non-process areas (e.g. parking lots and roofs) must be routed to the storm sewer system. The automatic diversion system must conform to the County Department of Public Works (DPW) Standard 2043-0, "Rainwater Diversion System" (copy attached), and must be approved by the Districts. Other methods of diversion such as automatic valves, manual gates, removable plugs, etc. are prohibited.

Diversion systems are subject to periodic inspections by the local agency and the Districts. Companies are responsible for maintaining the systems in proper operating condition to ensure that no excess rainwater or stormwater is discharged to the public sewer. If a company fails to maintain or operate the diversion system to the Districts' satisfaction, then the company will be required to roof or properly grade all exposed areas. Furthermore, modifications of existing diversion systems may be required as determined necessary by the Chief Engineer.

As mentioned above, automatic rainwater diversion systems must conform to the County DPW Standard 2043-0 and must include the following elements:

a. Pump Well: The point where the clean rainwater/stormwater is diverted from dry weather industrial wastewater shall be from a pump well as shown on the County DPW Standard 2043-0. During dry weather, the industrial wastewater flows generated in exposed processing areas that discharge into the well must be conveyed by means of a pump to a point upstream of any existing wastewater pretreatment system prior to discharge to the sewerage system. The pump must be selected to ensure sufficient hydraulic retention time in downstream pretreatment systems. The designated pumping rate shall not be exceeded at any time and shall meet any requirements set by the Districts and/or the local agency.

During rainfall periods, the pump must be automatically deactivated after 0.1 inch of rainfall, and all subsequent rainwater or stormwater that flows into the well must be diverted to the storm drain as explained in subsections b and c below. The diverted water must comply with any water quality standards imposed by the Regional Water Quality Control Board and any other agencies that regulate the storm drainage system. For this reason, industries should make every effort to maintain the exposed area's pavement clean and prevent discharge of industrial wastewater to the pump well during rainfall periods. This will reduce the likelihood of diverting contaminated water to the storm drain.

b. Rain Switch: A device to detect rainfall conforming to the detail shown on the County DPW Standard 2043-0 must be installed in an open area as close as possible to the pump well described above. The rain switch must automatically deactivate the pump whenever it detects 0.1 inch of rainfall so that no excess rainwater/stormwater will be discharged to the public sewer. The switch must not be reset while rain continues to fall. Furthermore, the switch must not be reset earlier than two hours after the cessation of rainfall and until the stormwater flows into the diversion system become negligible.

The rain collector must be installed in an area where it will remain directly exposed to rainfall. The collector and switch must also be located in an accessible area, as close as possible to the pump well and at a height not greater than six (6) feet above the adjacent supporting surface (floor, deck or other permanent walkway). This will allow testing of the diversion system safely and without undue difficulty.

If the Districts determine that it is not feasible to install the collector in an accessible area, then the discharger must provide adequate means for testing the diversion system (i.e. a permanent mechanism to convey water to the collector and a reset mechanism for the switch).

A "Y" section with cap for the purpose of testing the rainwater diversion system, as shown in the 2043-0 County DPW Standard, will only be allowed when all other means are proven to be impractical.

c. Overflow Line: The diversion of rainwater or stormwater to the storm drain, or other approved point of disposal must be accomplished through the use of a gravity overflow. The overflow line must be located in the pump well or slightly upstream and should be at the same elevation as the pump's effluent line. In the event that a gravity overflow is not feasible due to the surrounding grade of the property, the installation of a second pump to divert all rainwater/stormwater to an approved drainage system may be allowed. This second pump must be automatically activated by the rain switch at the same time that the pump conveying wastewater to the public sewer is deactivated. The rating capacity of the secondary pump must be sufficient to prevent flooding of the surrounding area and possible intrusion of rainwater into the sewerage system. Other methods of diversion such as automatic valves, manual gates, removable plugs, etc. are prohibited.

3. Impoundment of Rainwater in Spill Containment Areas. Except where the discharge of water to the sewer from the first 0.1 inch of rainfall has been approved, the storage and discharge of rainwater to the sewerage system is prohibited. Rainwater that falls directly on tank farms and spill containment areas should be discharged to the storm drain whenever practical. Such discharges shall be in accordance with the requirements set by the Regional Water Quality Control Board or the local agency. If situations arise where this method of disposal is impracticable, the Districts may accept the discharge on a case-by-case basis, provided documentation indicates that other alternatives are not feasible. Restrictions may be imposed on wastewater quality, flow rate and time of discharge.

II. GROUNDWATER

It is the Districts' policy to restrict groundwater discharges to the sewerage system. The Districts recommend that groundwater either be reused or discharged to the storm drain system. However, in recognition that there may be situations where sewer discharge may be the only viable disposal alternative, the Districts may accept the discharge of groundwater on a case-by-case basis, after all other alternatives have been determined to be infeasible.

Specific Requirements

1. Review of Disposal Alternatives. Alternative methods for disposal must be evaluated including water reuse and discharge to the storm drain system. A report presenting the results of such a review must be submitted with the permit application.

2. Documentation for Groundwater Cleanup Project. The discharger must submit, along with a completed permit application and engineering plans, a copy of a cleanup abatement order issued by the Regional Water Quality Control Board and documentation that the appropriate groundwater agencies, such as the Water Master and Replenishment District, have approved the cleanup operation.

3. Conditions of Discharge.

The discharge shall be in conformance with all conditions and requirements of the Districts' Wastewater Ordinance and the concentrations of all compounds present in the discharge must comply with the Districts' discharge limitations.

A shut-off system must be provided for the groundwater discharge which is capable of terminating the discharge should there be a violation of any discharge requirement.

A dedicated final effluent monitoring facility with a flow recorder and non-resettable flow totalizer must be provided for the groundwater discharge. Batch discharge of the treated groundwater may be required in some cases. In general, priority pollutant analyses (excluding asbestos) of the groundwater discharge will be required on a quarterly basis. The Districts may impose other monitoring requirements as deemed appropriate.

Should the existing baseline capacity unit entitlement at the disposal site prove to be inadequate, a connection fee for the discharge must be paid prior to issuance of the permit; an annual wastewater treatment surcharge must also be paid based on the discharger's contribution of flow, chemical oxygen demand, suspended solids and peak flow.

III. OTHER WATER DISCHARGES

It is the Districts' policy to restrict sewer discharges of contaminated or uncontaminated water from sources that include street drainage, yard drainage, fountains, ponds and tank testing. However, in recognition that there may be situations where sewer discharge may be the only feasible option, the Districts may accept a discharge on a case-by-case basis, after all other alternatives have been determined to be infeasible.

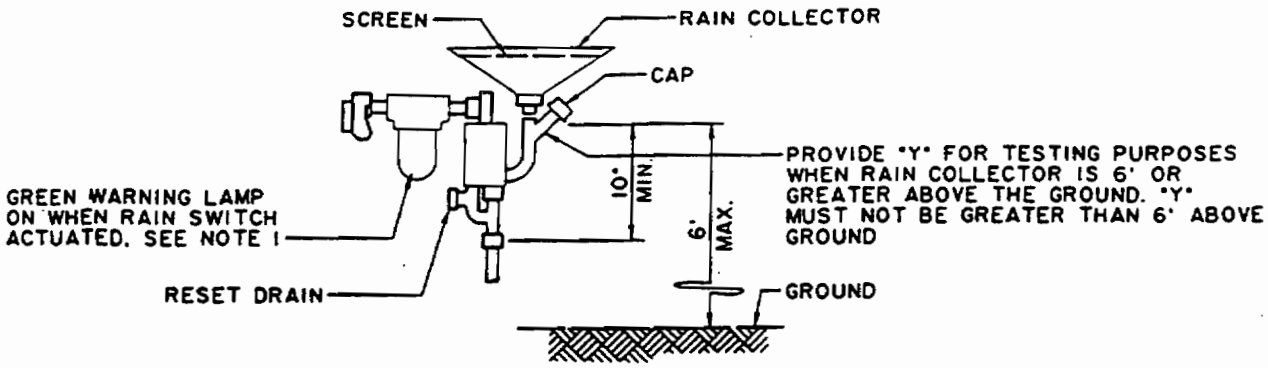
Additionally, Section 406 of the Wastewater Ordinance prohibits the discharge of four specific water categories as shown below.

a. Any excessive quantities, as defined by the Chief Engineer, of deionized water, steam condensate or distilled water.

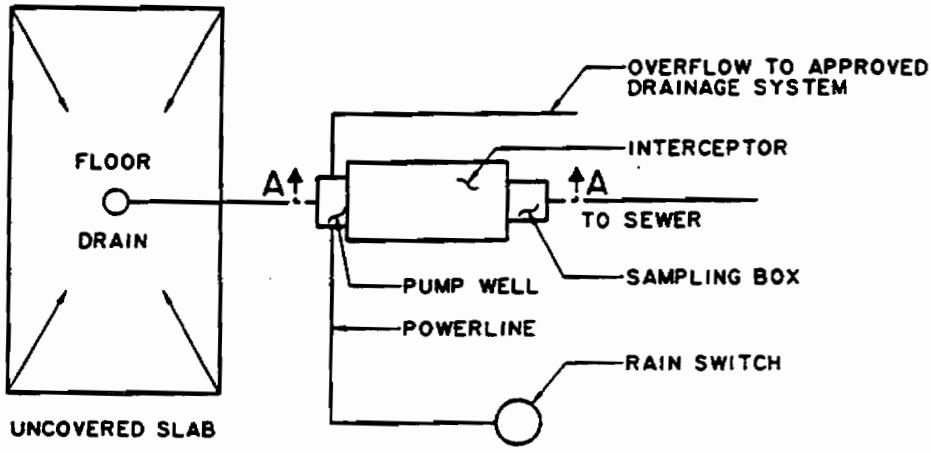
b. Any blow-down or bleed water from cooling towers or other evaporative coolers exceeding one-third of the makeup water.

c. Any single pass cooling or heating water.

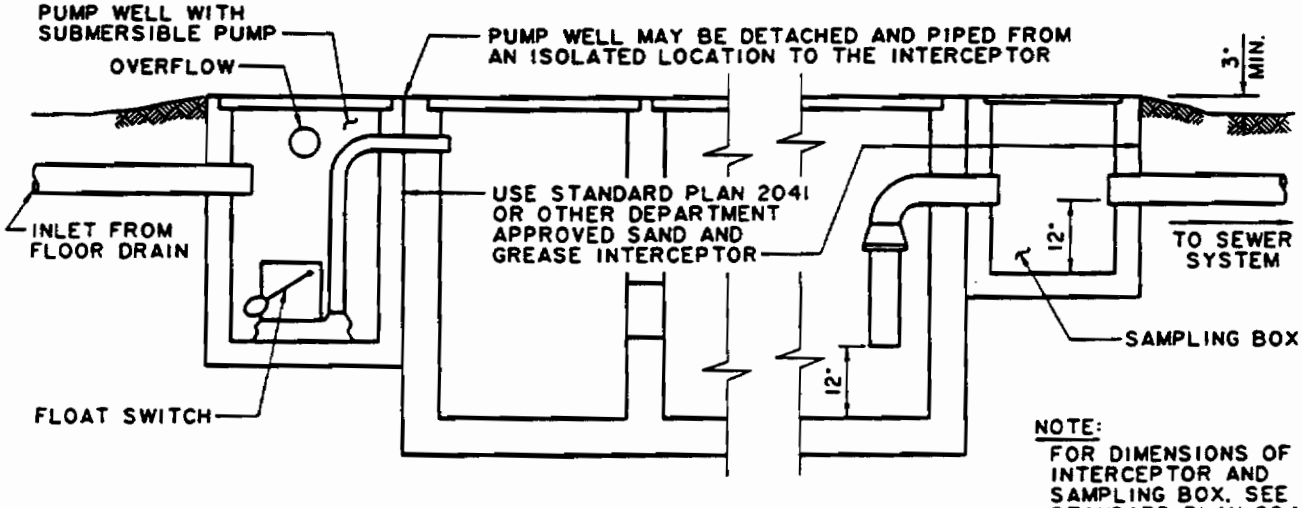
d. Any water added for the purpose of diluting wastes which would otherwise exceed applicable maximum concentration limitations.



APPROVED RAIN ACTIVATED SWITCH



SYSTEM LAYOUT



SECTION A-A

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

RAIN WATER DIVERSION SYSTEM

STANDARD PLAN
2043-0
SHEET 1 OF 2

APPROVED Thomas A. Tidemanson 5/31/1992
DIRECTOR OF PUBLIC WORKS DATE

SUPERSEDES COUNTY ENGINEER STD. 1-7

NOTES

1. WARNING LIGHT TO BE LOCATED IN THE OPERATIONAL ROOM OR OTHER SUITABLE LOCATION. POST A SIGN TO READ "NOTIFY OPERATOR WHEN GREEN WARNING LAMP IS ON".
2. THE RAIN SWITCH WILL SHUT OFF POWER TO THE PUMP AFTER 0.1" OF RAINFALL. RAINWATER ENTERING THE PUMP WELL WILL DISCHARGE THROUGH THE OVERFLOW TO AN APPROVED POINT OF DISPOSAL.
3. PUMP RATING CANNOT EXCEED MAXIMUM PERMITTED PEAK FLOW RATE.
4. ALL WATER MUST ENTER THRU THE INLET PIPE ONLY. ALL SURFACE WATER MUST DRAIN AWAY FROM THE INTERCEPTOR AND PUMP WELL TO EXCLUDE RAINWATER FROM THE PUBLIC SEWER.
5. PUMP WELL AND INTERCEPTOR MAY BE MONOLITHIC OR CAST SEPARATELY AND JOINED TOGETHER WITH EPOXY RESIN.
6. THE RAIN COLLECTOR MUST BE LOCATED FREE FROM OBSTRUCTION AND VERTICALLY ABOVE THE RAIN SWITCH WITH THE SHORTEST POSSIBLE CONNECTING PIPE.
7. STRUCTURE NOT FOR TRAFFIC LOADING.

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

RAIN WATER DIVERSION SYSTEM

STANDARD PLAN
2043-0
SHEET 2 OF 2